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CLINICAL LECTURE.

CHRONIC COLITIS—CHRONIC NEPHRITIS WITHOUT EXUDATION—CARDIAC HYPERTROPHY AND DILATATION WITH MITRAL STENOSIS AND INSUFFIENCY—SIMPLE ANÆMIA.*

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CHRONIC COLITIS.

Gentlemen: This man, 55 years of age, gives us the following history:

Over twenty years ago, in the army, he contracted a diarrhœa, which, despite treatment, has continued up to the present time. He continues to have from two to five small and watery passages a day, sometimes containing quantities of mucus, sometimes blood. During the last few years he has complained of pain and distress in the right side and back, swelling of the legs and a burning sensation in the feet and ankles. He is unable to work, and has not eaten solid food for the past nine months. He tells us he has been taking opium for the relief of his diarrhœa, but he had stopped this drug eight months ago. I questioned him closely, however, and he admits that he still takes a half drachm of laudanum two or three times a day. The examination of the urine, I am told, shows a sp. gr. of 1020 and no albumen.

Putting the man on the table, I examined his abdomen carefully by palpation and percussion, but fail to find any abnormality; nor would I expect to find any, for the history of this case is a straightforward one of chronic colitis. Whether there be ulceration or simply a chronic catarrh, I am unable to state, but it is certain that this catarrh of the lower part of the intestines has caused changes in the colon so profound by reason of its long duration that the colon cannot be restored to its normal condition.

In this patient before us, besides the colitis, there has been added the opium habit. Though we may believe what he tells us that the quantity of opium he is now taking is considerably less than formerly, yet the *habit* is undoubtedly established. With regard to the treatment of this case, I must confess that very little can be done. The indications are to relieve the diarrhœa and improve the man's general condition. It is idle to look for more. We shall put him upon small doses of castor oil—say 20 drops—together with tablespoonful doses of cod-liver oil twice a day. By this we hope to produce better fæcal passages, but do not expect to improve the condition of the bowel. This medication may be kept up indefinitely. His diet should be largely fluid, milk being the staple article. The question arises, should we try to make this man give up the use of opium? I do not believe it is worth while; he is old, and moreover, he looks like a man who has not long to live. The struggle to give up this habit would not only cause him great suffering but the success of our efforts would be very doubtful. I shall urge him, however, to decrease the dose he is now taking, or at least, promise not to increase it. You hear, he volunteers the statement that he will give up the opium altogether, but of this I am very doubtful.

CHRONIC NEPHRITIS.

This woman is fifty years of age; she has the appearance of having been accustomed to hard work and privation. She has come to the Clinic complaining of

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fainting spells, which she tells us, she has been subject to for about eighteen years. They are produced by worry and excitement and fatigue. At first they recurred about once a week, but lately they have been more severe and further apart. They would come on with a feeling of faintness and trembling all over the body, but without pain or nausea or complete loss of consciousness, sometimes with palpitation of the heart and sometimes without. They would last an hour or two, or perhaps an entire day. During the past year her feet have occasionally become slightly swollen. Her urine has been examined; the sp. gr. is 1005, and it contains a trace of albumen. The radial pulse, I find, is very feeble at both wrists; it numbers 88 to the minute. The heart's action, by auscultation, I discover, is also feeble, but there is no murmur, nor does the heart seem altered in size.

This, therefore, is a case of chronic nephritis without exudation, and though it must have existed for some time, judging by the low sp. gr. of the urine, and produced marked changes in the structure of the kidney, yet it has caused no symptoms except this slight dropsy that has appeared lately. It is an example of that class of renal disease wherein there is nothing much to demand treatment.

This woman has worked hard; has probably been often without sufficient nourishment and has probably used alcoholics. Could we change her condition of living, we would benefit her, no doubt. But this we cannot expect to do. As for the attacks of faintness, they are almost certainly not due to organic disease, but are such attacks as any nervous woman is liable to as the result of worry and over-work. The feeble action of the heart is the only symptom that, at the present time, might demand treatment. This would suggest the propriety of trying a cardiac stimulant. It is doubtful, however, how much benefit would be produced. I should order this woman the fluid extract of digitalis, two minims three times a day. Let her take this for one week, and if she does not improve, I should be inclined to give her no medication for the present; that is, it would not be well to tell her she was receiving no treatment, but give her a placebo and keep her under observation.

CARDIAC HYPERTROPHY, ETC.

I now show you a man, 42 years of age, who says that, with the exception of having had rheumatism off and on for the last thirty years, he has been in good health up to three or four weeks ago. Since this time he has complained of some shortness of breath and oppression over the heart on stooping or on working hard. He has complained also of palpitation at times, though he has been able to work at his trade of street paving up to to-day. His urine is said to have a sp. gr. of 1023 and to contain no albumen. He has been under treatment at the Clinic here, and has been taking iodide of potash and nitro-glycerine. As I take his pulse I note it is soft (which may be due to the drugs he is taking) and also that the artery is somewhat tortuous and the walls hard and resisting. The arterial tension is not increased therefore, but the vessel is the seat of chronic endarteritis. Inspection of the chest shows the apex beat displaced to the left, well circumscribed. By auscultation the heart's action is found to be irregular and intermittent, and not very strong nor yet very feeble. I hear distinctly a systolic and also a presystolic mitral murmur, not transmitted posteriorly.

This man's condition, then, is a serious one. He has endarteritis that has probably existed for a long time, and mitral stenosis and insufficiency, together with considerable hypertrophy and dilatation of the left ventricle. How can we account for the fact that, with this state of things, the patient has been able to continue at hard work and free from symptoms until within the past month? I think the explanation is to be found in this—that his kidneys have remained in good condition. This is evidenced by the examination of the urine. Should this man be sent to bed or confined to the house and put upon fluid diet, as you have frequently heard me advise in cases of irregular and weak heart with arterial disease? I do not think it necessary. On the contrary, I believe he will be better for a generous diet and moderate work and exercise in the open air. In the mean while we will try to put the heart and pulse in better condition. We should bear in mind that in these cases the condition of the circulation is different at different times; the arteries are sometimes contracted, at other times not. Hence it will be necessary to change the

remedies according as this or that indication arises. Two weeks ago we presume there existed a high arterial tension, since nitro-glycerine was given. Now this condition is not present. The irregularity and the intermittent action of the heart are the pronounced symptoms today, and for these the fluid extract of digitalis, m. ij., t. i. d., should be employed. And if it be certain that two weeks ago there was a condition of contracted arteries, potassium iodide, gr. v., should be added to the digitalis. I use Squibb's fluid extract of digitalis now altogether in cases of heart disease, in preference to the tincture and infusion. Its action is more certain and reliable; even a fraction of a minim will often produce the desired effect, and two minims may be considered a good dose. This patient may continue fairly comfortable doing his work, and free from dyspnœa and palpitation for the greater part of the time for some years, notwithstanding the serious disorder of his heart.

ANÆMIA.

This young girl, 21 years old, comes before us with the following symptoms: For the past three years, she says, she has suffered from attacks of shortness of breath, pain about the heart, nausea and vomiting and œdema of the feet. Under treatment these symptoms would subside but to return again, and in this way they have subsided and recurred several times during these three years. Her pulse, I find, is 120, but not feeble, and the artery is not changed nor the tension abnormal. Indeed, such a pulse would not direct attention to the heart. The examination of the heart is also negative; its action is regular. The urine does not contain albumen and its sp. gr. is 1022. Investigation shows, therefore, that the heart, kidneys and liver are not at fault, but attention should be directed to the blood. This should be examined; the amount of hæmoglobin and the number of corpuscles estimated. This would probably settle the question of diagnosis. There seems to be no doubt from the history, however, that the patient is suffering from the simple anæmia of young women. Such cases are apt to improve and then grow worse, and so fluctuate between good and bad health for a long time. The treatment, of course, is iron, but it must be persevered in. It is necessary, in fact, to administer it the greater part of a year or two, or until we are satisfied that the disposition to relapse has been removed.

PTERYGIUM.

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Gentlemen:—Pterygium is a growth of the bulbar conjunctiva of a triangular shape, with its apex pointing towards the cornea, and when trangressing on the cornea in its progress towards the centre, invades only that side of the cornea from which it comes. It is peculiar in that it very rarely, if ever, passes over the centre of the cornea; when it reaches that point its advancement seems to stop, but it is apt to spread out on the sides, becoming wider and thicker. Its shape, position and manner of growth are of diagnostic value.

The growth in the conjunctiva may be thicker or thinner, or broader or narrower, according to how it forms in the tissue. It is really a hypertrophic condition of the conjunctiva, containing vessels of various calibre and number. At times, strictly speaking, it is solely in the conjunctiva, which can be readily moved or raised over the sclerotica; at other times, especially when thick rigid and tendinous, it may be somewhat attached to the underlying capsule of the sclerotica. When on the cornea, it is thick, rigid, tendinous and firm, like connective tissue in neoplastic formations.

It is formed generally on the inner side of the ball, at times on the outer, sometimes on the inner and outer sides together, growing towards each other, and very rarely on the direct upper or lower surfaces. Its growth, however, is in the conjunctiva, over the line of the recti muscles—very few cases have been reported lying between the recti muscles. It generally starts from the inner canthus as a lot of small vessels, with one or two longer ones, extending beyond the others towards the corneal region. With these vessels, a certain amount of thickening of the tissue takes place, which spreads out fan-like, and slowly enlarges and thickens, creeping towards the edge of the cornea. When up to the cornea at the limbus conjunctivalis, it seems often

to be arrested in its long or meridional axis, and for years may not encroach on the cornea, but all the time becoming thicker and broader in the conjunctiva. At times it may be inflamed, and at others perfectly quiet and cause no trouble or ill feeling in the eye. As long as it remains in the conjunctiva the vision is not in the least affected by it. But after some time, which may be years, it begins to develop in or across the cornea; as it does so it assumes a tendinous or whitish appearance, resembling often a thick scar. When it begins to creep across the cornea, it may be noticed that there is a line of opacity spreading a considerable distance in the corneal tissue ahead of the pterygium itself, showing a certain amount of inflammatory action and filling in of the clear nutrient canals of the cornea. Two forms of pterygium have been distinguished—the true and the false—which differ only in a few particulars as to peculiarities of shape, thickness, etc., but are the same in character as to generalities and treatment, and therefore I describe to you to-day, with these cases, the general form and appearance, so that you can diagnose such cases and attend to them properly.

It has long been a mooted question as to what is the cause of this affection. It is a well known fact that it is an inflammatory process, but of a very subacute or chronic form, causing very little, if any, inconvenience for a long time. Some claim it is the result of small ulcers of herpetic character, which may occur in the conjunctiva and in the cornea, the healing and shrinking of these ulcers drawing the conjunctiva towards them. Others again do not agree in this view. The idea has also been given that this affection depends on venous thrombosis, or narrowing of a corneal and of a vena vorticosa, thus developing disturbances of circulation in the corneal portion of the ciliary arteries penetrating the recti muscles. In later years it has been claimed to originate from micrococci which becomes deposited in the conjunctiva and creeps along over on the cornea with a certain amount of inflammatory process following its track.

Whatever may be its cause, we well know its appearance, and when once developed and formed, to a certain degree it is permanent, and can only be removed by operative interference. It is found mostly in advanced life and very seldom in young people, while there are certain occupations in which persons appear to be prone to it. It is seen very frequently among seamen, even in comparatively young men. A former student of mine, Dr. Chandler, of the Island of Barbadoes, informed me that a great many of the colored people on that island were affected with it.

Some years ago, I took up the study of inflammatory diseases arising from strain, from defects in refraction of the eye, and in all cases of pterygium, whether in the conjunctiva alone, or on the cornea, I found some marked degree of compound hypermetropic astigmatism.

A curious feature in connection with pterygium, is that it will creep across to the centre or apex of the cornea and there stop. I may almost say that it has never been known to grow completely across the cornea from one side to the other; we may, however, have another like growth starting from the opposite side, either at the same time or later, which will grow until its apex almost reaches the centre of the cornea, but never quite meeting its fellow of the opposite side.

In looking over the field, we may correctly say that we really know nothing positive as to its cause, except that it commences as a small ulcer, with the small vessels of the conjunctiva running towards it, which gradually thickening grows toward the cornea, on the edge of which it sometimes remains for five, ten, fifteen or twenty years, and all at once again begins to grow and spread across the cornea. When this occurs, there is only one remedy, and that is operation as quickly as possible. If it grows over to the centre of the pupil, no matter what method is used in its removal, it leaves a cicatricial opaque condition of the cornea, leaving it just like ground glass, so that the patient is disappointed when he does not see perfectly after the operation. Therefore, always advise the removal of this growth as soon as it begins to spread over the cornea. It is not wise, however, to operate before this time, as it may take many years before such a growth will commence to invade the cornea, and it does no harm until it starts that stage in its development.

One thing I want you to remember is, that this condition is not cataract. The common idea among the people, and, I regret to say, among some physicians, is that cataract is something which grows

over or on the eye. I have had physicians send cases of pterygium to me under the name of cataract. Cataract is an opacity of the lens and occurs naturally in the eye-ball, while pterygium is an external growth.

Many methods have been proposed for the removal of pterygium. The first was to grasp the growth with a pair of forceps and cut it off with the scissors, leaving a triangular opening in the bulbar conjunctiva to fill with granulations. Where the growth was large on the cornea, it was shaved off with a knife and then the scissors used to remove the conjunctival part. But in this operation, it was often found that a return of the growth occurred, which was more difficult to remove on account of a firm attachment to the sclerotica. To remove this secondary danger, an improvement was made in not cutting the triangular piece out of the conjunctiva, but cutting back along the margin on either side of the growth, and allowing it to fall down and recede by gradual absorption, while the conjunctiva is brought together over the wound, covering up the space from which the growth has been removed. Then again, instead of letting the excised part fall down for a long, slow absorption, a good improvement was throwing a ligature around it and so causing it to slough off in a few days, while the triangular space, being covered by drawing the conjunctiva over it, heals up. Ligation has been tried. Szokalski suggested a very ingenious method of passing ligatures around the growth and causing it to slough off. This method, however, is seldom used.

Transplantation has been made with success, especially in very large and broad growths. This is done to relieve or prevent the retraction of the conjunctiva, which is liable to take place where a great amount of that tissue is removed and interferes very much in the mobility of the eye-ball. In this operation, the growth is turned up into an incision in the conjunctiva on the upper part of the ball. But if the pterygium is very broad it is much better to split it down the middle after its separation from the cornea and conjunctiva, and transplant one half upward and the other half downward.

A very easy and simple, as well as successful, method, has been lately introduced for the removal of this growth from the cornea when its attachment is not too deep in the corneal tissue. Generally, the attachment of the pterygium in its growth over the cornea, is superficial and only to the anterior layer, from which it can readily be torn, so, by forceps or a strabismus hook under it, it can be pulled away from the cornea. The apex recedes and the conjunctiva is brought together on the line contiguous to the cornea.

Now, gentlemen, I have two well-defined and very different cases of this disease to present to you to-day. The one I first show you has been growing for years; you see the patient is an old man. The growth extends almost to the centre of the pupil and spreads out in the conjunctiva, fan-shaped, towards the inner canthus, so broad as to cover almost that side of the ball. It is too large to dissect up and remove, so I shall divide it and transplant one half above and the other half below. I first take up the thick tissue in my forceps, and with the scissors make a small opening along the upper border of the same, near the cornea, and one on the lower edge immediately below it. Through this I pass a strabismus hook so as to lift it up, drawing from the cornea, at the same time grasping the corneal part with my fixation forceps to aid in pulling the growth off the cornea. Now, having done so, I cut on either side back to the ball, and dissect it up loose, and then make with my scissors a curved incision in the conjunctiva above the cornea on the top of the ball and an incision in the lower part. I now split the pterygium straight down its centre to the base and then turn each half into its new position in the conjunctiva and fasten by sutures. The second case I show you is of much smaller growth, and not spread out much in the conjunctiva. In this case I shall only draw or tear the corneal attachment loose in the same way as I did the former operation, in and let the apex of the pterygium recede back from the cornea, and then draw the conjunctival wound together to cover the gap made. The thickened part, or apex, gradually shrinks away, so that in a short time very little, if anything, remains to be seen.

This tearing the growth from its corneal attachment appears to have many advantages, and is a great improvement on its removal by cutting. When cut or shaved off, considerable opacity remains, and often a thickened, firm, tissue-like prominence.

The attachment seems to be rather superficial, not passing into the deeper tissues of the cornea, but fastened by little filaments which take only slight hold upon the anterior layer, so that simply by pulling it gently, the attachments are broken loose, and a more or less clear cornea remains.

COMMUNICATIONS.

THE ORGANS OF HEARING AND LIFE INSURANCE.

(Translated from the works of Dr. Josef Gruber)

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The examination of a candidate for admission in a life insurance company by the aural physician should solve the three following questions:

First.—Is the life of the individual in question endangered by the condition of his organs of hearing; if so, to what degree?

Second.—Has the ear affection any connection with other local or general affection; if so, what is the connection?

Third.—What is the relation of the special disturbed function of the ear, more especially with reference to the following of the vocation, or would it invalidate the policies or militate against the individual to be insured?

Everyone who is even partially initiated will be able to perceive by these questions alone what knowledge is required for their proper solution, and how, in doubtful cases, a recourse must be had to the judgment of the more experienced. Even the judging of the average case will be made more easy to the less experienced physician if the points for the formation of a diagnosis are indicated to him.

The statements of the patient, as elicited by oral examination, will be of the greatest interest, but we must be guarded, so as not to be too credulous, and try always to ascertain, by an objective examination, whether the patient's statements can be made to harmonize with the existing condition of the organs of hearing.

It is not intended here to say that the statements of the individual must, in every case, be confirmed by a positive or negative result of an examination, for the objective examination generally gives a negative result in those cases where the functional disturbances may be the most detrimental to the individual's capability; *e. g.*, in those produced by a primary or secondary labyrinthine lesion, where the objective examination gives frequently a completely negative result. It is the case of those individuals who desire to be admitted into a life insurance company that they attempt to conceal their aural affections, which occasionally are very dangerous, or they try to at least underrate the significance of their ear diseases and then the objective result (of the objective examination) must correspond with the respective statements. We are in favor of allowing the individual about to be examined to relate his own history of the affection, and then complete and purify his statements by appropriate questions. Very often the physician's attention will thus be led to points which he otherwise would have overlooked.

The objective examination of the organs of hearing may be divided into an ocular, tactile and auscultatory, and should be conducted with the greatest exactness, more especially as regards the relation which it bears to the organism at large. In my hand-book, published by C. Gerold's Son, in Vienna, the various methods of examination are carefully detailed. The limited space here does not admit of a more thorough consideration of the subject, and I, therefore, must refer to that work, and proceed to at once, commencing in anatomical order from without inwards, mentioning and elucidating those symptoms which are of the greatest importance to the diagnosis in the prognosis of diseases of the ear.

A. External Auditory Portion.—First we consider the neighborhood of the pinna. Inflammatory swellings of the soft part, irritative swellings of the lymphatics, especially those in the maxillamastoid fossa, and at the mastoid process, fistulous pus-tracts in this region, as well as swelling of the mastoid process, especially when all these appearances last long, they are frequently to be regarded as the consequences of serious affections of deeper structures, dangerous to the life of the individual.

Great attention must be paid to ulcerated surfaces in this region and those on the pinna, for they are occasionally the expression of a carcinomatous degeneration, only to be diagnosed by the use of the microscope. Fistulous tracts should be explored carefully, which may lead to a detection of the condition of the bone and of the original seat of the affection. Occasionally in the swelling of the lymphatics in the mastoid region is connected with affections of the ear, which is only a part appearance of a general lesion, namely syphilis and scrofulosis. I must here emphasize that I have often seen cases where the appearances in and about this region were the first signs of a constitutional syphilitic affection that had made itself manifest. Ulcers of the pinna itself are occasionally the result of constitutional syphilis, or they may be of a lupus or carcinomatous nature. In a far progressed gouty affection, deposits are not infrequently found in the pinna. Hæmatomes occur here as neoplasts of a local importance, only the so-called othæmatom might in one case or another be connected with other affections of the vascular system. Foreign masses in the external auditory canal, including the accretions of cerumen, must first be removed in an appropriate manner, so as to gain an accurate insight into the deeper sections. Here it may be mentioned that occasionally cholesteatomes proceed from the deeper sections of the same into the auditory canal, where the newly formed mass easily mixes with cerumen, assumes its color, and may give rise to great errors.

Inflammatory affections of the external auditory canal are to be judged with reference to the functional data and general appearances. When such exudative processes are connected with great swelling of long standing of the soft structures, and especially when connected with increase in size of the bony portions, when polypi appear in the auditory canal, when probably pieces of bone have escaped, they always awaken a suspicion of caries or necrosis. I wish particularly to emphasize that only very rarely can a diagnosis with the ordinary surgical methods of examination be obtained in an affection of bone located in the deeper seated portions of the temporal bone, because the probe, in most cases, does not reach the affected portion at all. The diagnosis must be made with the aid of the microscope, periodically examining the masses removed from the auditory canal.

In bone implication, small particles will be found which will furnish the surest proof of the presence of caries or necrosis, especially if the examination has been conducted with appropriate care. When polypoid growths are present in the auditory canal, a microscopical examination will furnish a solution of their specific character; some, although rare, appear as carcinomatous neoplasms.

The appearances on the membrana tympani call for the most thorough consideration, because from it we can diagnose not only those affections that have their seat in the membrane itself, but frequently we can, from it, judge the condition of neighboring organs, especially the bearing of the scructures of the middle ear. Opacities of the membrane are most frequently connected with diseases of the structure of the middle ear, especially when they present an arched (semi-circular or circular) appearance; these affections may, in a great degree, endanger the power of hearing. Polypoid growths on the membrane and perforations with contemporaneous continuous or periodical otorrhœa go frequently hand in hand with dangerous inflammatory diseases, and merit the greatest attention. Perforations of the membrana tympani become free from danger to the deeper structures generally only when the otorrhœa has long ceased and the mucous membrane has become sclerosed.

B. Middle portion.—In this portion of the ear we find mostly those diseases localized which, on one hand, may become dangerous to the life of the individual, and, on the other, cause difficulties in hearing, or other unpleasant consequences. To expose the condition of this portion of the organ of hearing, the physician must direct his attention to all those parts which stand in any relation with it: the auditory canal and the membrana tympani, and also the structures in the neighborhood of the mastoid process, the nasal and pharyngeal regions; for not infrequently important and substantial affections of the middle ear spread their noxious influences hither, or are occasionally even the result of primary affections of these structures. In judging of the results obtained by the various methods of examination, the general condition must be considered,

and we must not precipitatedly make a diagnosis, because the most experienced is often enabled to make a proper diagnosis only after repeated and protracted examinations. This is more particularly the case with reference to the so-called dangerous caries or necroses, which are often seated so hidden that they do not betray themselves to the most experienced eye. The microscopical examination of the discharge from the ear, or a fistule, as mentioned before, will soonest and best furnish an explanation. Since the long-existing and profuse otorrhœa is no sure sign of caries, so we, on the contrary, must not conclude the opposite to be the case from a temporary or complete cessation of the same, and the physician must build up his diagnosis and form a prognosis from all the appearances within and without the organ of hearing.

Let it be mentioned here once more that the nasal and pharyngeal examinations must be conducted with the greatest minuteness, for occasionally there occurs in the middle ear only the simplest signs of an inflammatory process, while in the nose and pharynx syphilitic and carcinomatous degenerations are carrying on their destruction.

C. Internal Ear.—Life is seldom, if ever, endangered by primary affections of the labyrinth. The connections of the internal ear serve frequently as conductors of dangerous diseases from the middle ear to the brain or its membranes, and thereby cause a fatal termination. On the other hand, it is evident that diseases of the brain of a dangerous character extend to the auditory nerves and the labyrinth, and from this point betray their existence, and, like general lesions, assert their noxious influence upon the organ of hearing.

Concerning the capability of the individual to self-support, or of the expected or already existing invalidity of an individual, we will have to consider, not alone the existing forms of ear disease, the degrees of disturbances of hearing, and other subjective symptoms, but also the occupation of the patient.

A rationally managed insurance company will allow this rule to stand at the acceptance as well as in the act of declaring a policy invalid.

CASES AND CONCLUSIONS.

By LAWRENCE TURNBULL, M. D.

The great importance of a critical examination of the organ of hearing before a policy of insurance is issued to an individual suffering from ear disease, is well shown in the preliminary article by Professor Gruber, of Vienna, translated by my friend and pupil, L. W. Steinbach, M. D. Cases are frequently presented for our examination in which, to all appearance, the individual is in perfect health, yet there is a slight discharge from one or both ears. We cite a case in point. A gentleman, W. H., aged forty-two, presented himself for our examination, and he made very light of a discharge from the ear, which he stated had existed for years and only required cleansing once a day, and gave him no trouble. We told him of the great risk he ran of a sudden cold being taken during imprudent exposure which might cause his death. He was not considered a good risk. There was a perforation of the drum membrane and discharge. His family history was good. His father had lived to a good old age. This discharge, in connection with the grippe, was ultimately the cause of this young man being cut off before he reached the age of 45 years, the normal period of longevity. This suppuration from his ear of so long a continuance had destroyed the lining membrane which covers the delicate bone of the part and this was followed by ulceration and necrosis of the bone forming the roof of the middle ear (tympanum), and the next scene was abscess of the brain and death. Another form of ear disease which would prevent the issuing of a policy as a first-class risk, is in cases where there is disease of the bone, the temporal especially being invaded, propagation along the Fallopian canal; involvement of the facial portion of the seventh pair of nerves, causing what is termed facial paralysis. We have met with several cases of this form of disease of the ear, and three of them recently. The first arose from an acute attack of chronic catarrh of the tympanic cavity, which had existed for years with the entire loss of hearing for one ear, and caused another chronic tympanal disease, with very imperfect hearing, in the other. Fortunately local depletion and aconite relieved the prominent symptoms

of fever, etc., in the first instance, and in the other with very large doses of iodide of potassium, even up to 100 grains a day, recovery occurred entirely in a month's time. The second was the result of a chronic discharge from the ear with loss of the drum membrane followed by extensive disease of the bone, which had been treated three years before with success by scraping, and the patient had been free from discharge and pain for three years. The disease again showed itself by a bloody discharge with severe facial paralysis, loss of power over the face, and falling of the eyelid, so that the latter had to be supported for months with a strip of isinglass plaster. A prolonged treatment by cleansing, antiseptic washes and the internal adminstration of the iodide of potassium, and then the "four chlorides" have almost restored the function of the nerve and the power of the eyelid and face, but it is liable to relapse. The third case was a patient in Jefferson College Hospital. The condition of the ear and face was the direct result of the poison of secondary syphilis, and was cured by a long continued course of mercury.

Another large class of cases which cannot be accepted as first-class risks, are those where we have diseases of the mastoid cells (just back of the ear) and forming the air cells of the middle ear. Numerous cases of sudden death follow the neglect by the surgeon to remove the diseased bone.

The last class of cases are those apparently of slight ear disease in which we have a thin watery discharge during the early state of tuberculosis, but which is followed and kept up by the increase of the cough, and in which no local or general medication is of any avail. Persons with a persistent cough, dullness at the apex of the lung, and a discharge from the ear we consider far from being a good risk for life insurance. Simply defective hearing, so that the individual cannot hear the human voice loudly spoken within a few feet, is apt to lead to accidental death in crowded streets or at a railroad crossing. Some insurance companies, both in this country, in England and on the continent of Europe, refuse under any conditions to accept any one suffering from an otorrhœa. We fully agree with our revered friend, the late Dr. Cassells, in that this rule of procedure is too sweeping, for there are many cases of ear disease with tissue lesion only in which there are reasonable grounds for saying that, inasmuch as the ear discharge is simply an excessive secretion from hypertrophied tissue, or at all events not the results of an ulcerative process either of these or the underlying bone, there may be a healthy constitution with no tuberculous, syphilitic, scrofulous or other history.

Under proper treatment many cases can be permanently cured and all discharge arrested; therefore, such cases should be accepted. In severe cases there might be an additional increase of premium. All suspected and questionable cases should in every instance be submitted to the critical examination of an expert in otology.

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OPHTHALMIA NEONATORUM AS A CAUSE OF BLINDNESS.*

By T. B. SCHNEIDEMAN, M. D.,
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My object in bringing this subject before the Society is to direct attention to a disease which is responsible for about one-third of all cases of blindness, of which a most important means of prevention—that of public legislation—can only be obtained by the active intervention of medical societies. The following case is presented, not because of its novelty, unfortunately, but as somewhat typically representing the lamentable result of negligence or ignorance:

H. M., age three. Both eyes became sore when five days old. O. D.: Dense adherent leucoma lower inner portion of cornea. Remainder of cornea hazy, stretched blue-gray iris in contact with it. Globe apparently somewhat distended; leucoma prominent but easily covered by lids. T.: Normal. O. S.: Leucoma slightly denser and more prominent but not larger. Broader space of translucent cornea than O. D. R. and L. light perception.

The subject has been very thoroughly worked out in Europe, and a mass of statistics has been accumulated. According to the report of the Royal Commission on the Blind, published in 1889, 30

* Read before the Philadelphia County Medical Society, December 9, 1891.

per cent. of the inmates of the institutions, and 7000 persons in the United Kingdom, have lost their sight from this cause. Professor Magnus, of Breslau, finds that no less than 72 per cent. of all who become blind during the first year of life are rendered so by purulent ophthalmia; and even of those who become blind before the twentieth year of life, it constitutes as much as 23.50 per cent. Looking at the subject in another way, he shows that of 10,000 children under five years of age, 4.28 are blinded by purulent ophthalmia. In the blind asylums of Switzerland the proportion who have lost their sight from this disease is 26 per cent.; in the asylums of Austria, Hungary, and Italy, about 20 per cent.; while in Spain and Belgium it falls to about 11 or 12 per cent. And in this city, Dr. Harlan, as the result of examination of the eyes of 167 inmates of the Pennsylvania Institution for the Blind, found that 55 owed their affliction to purulent ophthalmia, and more than half of these were of the form occurring in infants.

The lesson taught by such statistics is not simply that ophthalmia of the newborn is the most common cause of blindness; if that were all, they would, no doubt, still preserve a melancholy interest, but they have a much greater importance, for they tell us that it is quite within our power to have prevented the great affliction of blindness in one-third of those who are deprived of sight. For it is hardly too much to say that no one should lose his sight from this disease, not only because it is quite amenable to treatment, if this be instituted from the beginning, but because the disease itself can be prevented in most instances if those who have the care of mother and child understand the nature of this affection.

Ophthalmia of the newborn is an *infectious* disease, and can only occur after the infectious matter has come into actual and somewhat prolonged contact with the conjunctiva. The noxious matter is in every instance derived from an inflamed vagina (or urethra), or from another eye. In the great majority of cases infection takes place from the vagina, and it is to be remembered that the disease is not caused by the secretion of a specific (gonorrhœal) catarrh only, but that it may be produced by the secretion of a simple leucorrhœa, or at least by what is recognized as such clinically.

As regards the period when infection occurs, this may take place either during or immediately after birth, or at some subsequent moment. In the former case, the *materies morbi* is derived directly from the vaginal secretion. The child passes through the parturient canal with closed eyes, hence during the passage of the head the secretion can only penetrate into the conjunctival sac in very small amounts, if at all, but it remains adherent to the eyelashes and edges of the lids, and can readily gain an entrance into the eyes as soon as these are opened and the child winks upon the escape of the head. Infection may take place during birth, if anything occurs to displace the soft parts of the face, as may happen in protracted and difficult labors, large size of head, etc., conditions more likely to be present in primiparæ, and with the larger heads of male children. But the time most fraught with danger is usually the moment the head escapes and the child first opens its eyes. In the majority of cases, infection takes place at some time during labor, and the disease first manifests itself from the second to the fifth day; if it does not appear until later, infection took place subsequent to birth. This may happen by the transference of secretion to the child's eyes in various ways, as by the hands of the attendant, by soiled linen or sponges, etc.; but the lochial discharge, as such, has been found to be incapable of causing the affection, if the woman be free from disease.

The discovery of the gonococcus has led investigators to examine the secretion of purulent ophthalmia for the same organism—and in the vast majority of cases examined it has been found to be present therein also; still, different observers appear to have reached results not entirely in accordance as to the relative frequency with which this organism is present. Cases do occur in which it cannot be found. Hence the attempt has been made from a bacteriological point of view to recognize different forms of the disease—a specific form and simple inflammatory forms. As stated above, the secretion of simple vaginal catarrhs are capable of causing purulent ophthalmia.

Formerly this disease was attributed to a variety of causes, such as injuries received by the eyes during birth, icterus, chilling of the body, intense light, etc.,

but these views are, of course, no longer entertained. Ordinary pus and even decomposed pus cannot produce it. Purulent secretions from lachrymal abscess and caries of the orbit frequently get into the eye, and do produce inflammation of the conjunctiva, but not the ophthalmia of the newborn with its great liability to involvement of the cornea. Putrid flesh, putrid blood, and even pure cultivations of various microörganisms, have been introduced into the conjunctival sac without any ill effect.

Prophylaxis, to be efficient, must, of course, first of all recognize the infectious nature of this affection, and secondly, the source whence the infectious matter may be derived.

Among general measures are to be placed all influences which can be employed to impress upon the public the dangerous character of all affections of the eyes of young children. Like all similar diseases, this affection is most prevalent and destructive among the poorer classes, who do not usually employ a physician to attend them in confinement, but rely upon a midwife too often but little better instructed than the woman she attends.

In some dispensaries for the treatment of diseases of children, a small tract is handed the mother or attendant who brings the child, giving advice as to the proper care of infants, their diet, bathing, etc. A few lines might be added, calling attention to the serious nature of this inflammation—ignorance of which and the proneness to ascribe every affection to "catching cold," which will get well of itself, is responsible for many ruined eyes. With this end in view, it might be advisable to have articles appear in the public prints from time to time explaining the danger of the disease in question, and urging the importance of immediately attending to every case of inflammation of the eyes of the young child. Even the ignorant classes understand the dangerous nature of certain other diseases, such, for example, as diphtheria and scarlet fever, and if ophthalmia of the newborn could be added to these, the deplorable results of neglected cases would be less frequently observed.

To reach this class (which is undoubtedly responsible for the great majority of those unfortunates who have become blind from this disease, namely, midwives), it has been proposed to compel all such to report every case of ocular inflammation at the earliest possible moment to some physician. Such laws are in force in certain countries of Europe, and there appears no good reason why a similar law might not be enforced in this country, just as there are laws requiring other contagious diseases to be reported. If this could be done with any degree of efficiency, it would do more toward abolishing loss of sight from this cause than any other measure. The State of New York has such an act in operation, requiring midwives and nurses to report every case of inflamed or reddened eyes occurring within two weeks after birth to some legally qualified practitioner within six hours, under penalty of a fine or imprisonment, or both. This law has been in operation for a little more than a year, and it is hence too early to obtain much information as to its practical working. A few convictions would direct the attention of that class which it is desired to reach to this subject, and in this way, at least, be productive of a certain amount of good.

As regards special measures of prophylaxis, these were clearly formulated as early as 1807 by Gibson, in the following ing principles, which all later experience has tended to confirm. They are, first, to cure the leucorrhœa of every pregnant woman when possible; or failing in this, second, to disinfect the vagina during labor; and third, to remove the secretion from the child's eyes immediately after birth by a fluid which renders the secretion harmless.

Notwithstanding their importance, I shall here pass over the first two and consider briefly the third of these indications. Of all the methods employed, none have yielded better results than the one recommended by Credé. This consists in dropping into the eye a two per cent. solution of nitrate of silver after simple preliminary washing with clean water. Other agents, such as carbolic acid and boracic acid, have been tried, but none gave results so satisfactory as the silver, perhaps because the latter has the power of penetrating deeper into the tissues. As a proof of the efficacy of this procedure in diminishing the number of cases of purulent ophthalmia of the new-born, the following figures, all obtained from the same hospital and the same attendants, furnish the evidence:

Children.	Treatment.	Per ct. of blenorr.	Per ct. of catarrh.	Total.
1092	No treatment . .	4.75	14.5	19.25
1541	2 per ct. of carbolic acid	1.42	.6	7.42
1250	2 per ct. of silver nitrate	0.72	4.72	5.44

And similar good results have been obtained in other lying-in hospitals. Still, this method, which is somewhat severe, is not necessary in every case in private practice, although, even if unnecessary, it is quite devoid of serious danger. As a milder measure, simple washing the eyes with clean water as soon as the child is born has been found efficient in diminishing the number of cases of the disease —while in any case in which there is a history of copious purulent discharge from the vagina, it would be advisable to employ the silver solution as recommended by Credé.

As regards the disease itself, it is almost superfluous to present any formal description; its phenomena are so characteristic that it is impossible to mistake its nature when fully developed. The swollen and reddened eyelids, the upper drooping and partially overlying the lower, the great difficulty or even impossibility of opening the eyes, the profuse purulent discharge welling forth as the lids are gently separated by the finger, the pain and heat, the swollen conjunctiva, rising like a mound, in which the cornea is buried, all these go to make up a picture which cannot be overlooked nor confounded with any other. But that every inflammation, however slight, affecting the eyes of a new-born child may, if neglected, become the fully developed disease, and that, too, in a day or two, should always be in the mind of every one who has any connection with the case.

The danger of this disease consists, of course, in the great liability of implication of the cornea, leading to perforation of this structure, with the serious results dependent thereon. It was formerly believed that the cornea, being an avascular structure, became affected from interference with its nutrition by the pressure of the swollen conjunctiva, but while such pressure may be unfavorable to the nutrition of this structure and predispose it to yield more readily, the direct cause of the corneal disease is infection from the microörganisms which have their nidus in the profuse purulent secretion, upon the recognition of which depends the rational and efficient treatment of this disease. This consists, first of all, in the removal of the pus from the conjunctival sac as soon after it is secreted as possible; and second, to render innocuous any portion of the secretion which remains in the eyes by appropriate germicides; and thirdly, to act upon the inflamed secreting membrane by some agent capable of modifying this surface and checking or diminishing its secretory activity for the time being.

The particular means adapted to carry out these indications are various, and the methods selected vary somewhat, according to the preferences of different physicians. To disinfect the conjunctival sac almost all the antiseptics employed in general surgery have been used, and with more or less good effect. The following plan has been found so efficient as to leave little to be desired: The attendant should remove the pus once every hour during the height of the disease; this can be done by gently separating the lids and flooding the conjunctival sac repeatedly with an ordinary pipette or dropper until the cleansing fluid returns clear and unmixed with pus. The fluid employed is a rather strong solution of bichloride of mercury, 1 : 2000. Besides its mechanical effect in flushing the sac and so removing the pus, it is one of the best germicides that can be employed and withal entirely safe. Other agents might be made use of, such as carbolic acid in two per cent. solution, saturated solutions of boracic acid, though the latter seems inert as a germ destroyer, at least according to laboratory experiments, nitrate of silver, etc., but none of these agents have any advantage over the bichloride. To meet the third indication, to modify the inflamed membrane, a rather strong solution of nitrate of silver, ten, twenty, or even forty grains to the ounce, should be applied once, or perhaps twice, in the twenty-four hours to the everted lids by the surgeon. The application can be readily made by wrapping a pledget of absorbent cotton around a match stick, dipping into the silver solution until saturated and then gently and thoroughly applying it to the palpebral conjunctiva. No subsequent washing with sodium chloride solution is necessary. The above treatment, simple as it is, gives results entirely satisfactory. I do not recall a single case in which it was practiced that did not result in perfect recovery without damage to the cornea, although in some cases the disease had

existed for a number of days and in a number of instances the cornea was so greatly infiltrated when the patient first came under treatment as to cause fears of immediate perforation. In those cases in which the cornea becomes affected, as evidenced by partial opacity, atropine, or, in some cases, eserine, should be instilled into the eye—for if, unhappily, perforation should occur, the eye will be more likely to preserve some degree of useful vision if prolapse of the iris can be avoided.

If one eye only is affected, the question arises how to prevent infection of the other eye. The shield, to protect the sound eye, is not applicable in infants as it is in adults. Great cleanliness, constant removal of the secretion, making the child lie on the affected side, will prevent infection in many cases. It might also be advisable to use the bichloride or the silver solution as a prophylactic measure.

Finally, in those cases in which perforation, with its usual results of adherent iris, etc., has occurred, something may be done by operative interference if any portion of the cornea remains clear. Here the indications are to free the iris from its adhesions to the cornea lest total staphyloma supervene. This procedure may be difficult to carry out, may involve extraction of the lens, and in any case would hardly give more than perception of very large objects.—(*For discussion, see Society Reports.*)

SOME MOOTED POINTS CONCERNING THE VOMITING OF PREGNANCY.*

BY T. RIDGWAY BARKER, M. D.,

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In discussing the etiology, symptomatology, and prognosis of the digestive disturbance associated with gestation known as morning sickness, or the vomiting of pregnancy, it becomes necessary at the very outset of a comprehensive study of the subject to exclude those forms of gastric trouble which, while often accompanying this purely physiological process, are nevertheless not dependent upon it for their existence, but upon some preëxisting morbid condition which is simply aggravated by the changes incident to gestation.

From a failure to appreciate and differentiate between these forms of gastric disturbance is largely due the confusion and misconception which is so general, hence the existence of such a multitude of views as to the cause and gravity of the vomiting of pregnancy.

It becomes necessary, therefore, that we state clearly that when we speak of morning sickness we do not include the so-called vomiting *in* pregnancy, but confine our remarks solely to the vomiting *of* pregnancy. Without further explanatory remarks, let us proceed to a consideration of the subject from a scientific standpoint, ever mindful, however, how easy it is to advance a theory and how difficult to find evidence to support it. That the occurrence of vomiting without apparent cause in females who have exposed themselves to the risk of conception is a sign of much importance is generally admitted, since it so quickly follows cessation of menstruation and, therefore, further tends to confirm the presumptive evidence of pregnancy. With reference to its etiology, one finds as many views as there are stars in the sky, each differing from the other in magnitude and brilliancy even as these distant orbs of light. Let us, then, turn away from such a merry-go-round of medical opinion and seek to discover the truth in the realms of anatomy and physiology rather than in the domain of idle speculation.

Coincident with conception, we find a general rise in the intra-pelvic blood pressure resulting in increased activity on the part of all the viscera therein contained which are concerned in the process of reproduction. Cells heretofore carrying on a passive existence now spring into a high state of activity. Likewise there occurs hyperplasia and hypertrophy of tissue which is especially rapid in the uterine muscular elements. Nerves, which in the unimpregnated condition possess but a low grade of sensibility, now become highly sensitive and transmit readily to their respective centres slight disturbances which under other circumstances would fail to throw them into a state of activity. What relation, one may very properly ask, exists between the vomiting of pregnancy and this exaltation of the nervous system? A causal one, most assuredly!

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Can one fail to realize that this is a symptom of pregnancy due to the change in the nervous equilibrium induced by the process of gestation? Surely not. Rather are the nausea and vomiting expressions of a reflex irritation, having its origin at the end-organs of the uterine nerves, which, as we have seen, are in a hyperæsthetic state. As the growing ovum demands, day by day, an increased space for its development, these end-organs are subjected to a varying degree of irritation, which is transmitted to the centres and thence reflected out along the nerve filaments distributed to the stomach. Why this affection is of more frequent occurrence and of greater severity in the first than in subsequent pregnancies one can readily understand by comparing the cavities of the primiparous and multiparous organs.

We find in the former that the uterine muscular walls are convex and nearly, if not quite, in apposition, hence the capacity of the organ in these females is relatively less. Not so the multiparous uterus, for its walls are concave and the capacity is further increased in length by one-half of an inch, owing to incomplete involution on the part of Nature after the first pregnancy. Need we seek for more conclusive evidence than this to support our position? Is it not plain to be seen that the resistance in the primiparous organ will be greater and the nervous disturbance more pronounced than where the cavity is larger, thus allowing the ovum to undergo its development without interference? Further, the period when nausea and vomiting are most apt to occur is in the second month, at a time when the growth of the uterus is principally lateral and the villi of the chorion are thrusting themselves into the serotine or placental decidua. As to the character of its onset, it is usually gradual, and disappears in a similar manner as the uterus rises out of the true pelvic cavity, thus having quite ceased by the end of the fourth month.

Concerning the symtomatology of this affection, it has not a few well-defined characteristics. The primary nausea and oppression experienced over the epigastrium soon gives place to vomiting, not, however, preceded or accompanied by any degree of nervous depression, as is the case with emesis under all other circumstances. The food, if any is present in the stomach, is expelled, not violently nor with any amount of retching, but almost as if it were regurgitated. Should the stomach be empty, then simply a little clear, normal gastric mucus is raised, which, as it usually occurs early in the morning, has given rise to the popular appellation of morning sickness. Further, if the matter vomited be food, it will not be found on examination to be sour or to have undergone decomposition, but in a more or less perfectly digested state, depending upon the length of time since its ingestion. As to the subsequent amount of nervous depression, in most instances it is practically *nil*, even when the vomiting is frequent and of long duration. This fact is very noticeable in some cases; the pregnant female may have just finished a hearty meal—for impairment of the appetite is rather the exception than the rule—when almost immediately afterward she will be obliged to evacuate the stomach, only to turn to the piano and find consolation for her lost breakfast. Rarely does one meet with a case of vomiting of pregnancy where the female's health has materially suffered, and this is what one would reasonably expect from the study of the symptomatology of the affection.

That this digestive disturbance is a purely sympathetic one, is proven by the fact that by a strong effort of the will the female can not infrequently ward off an attack.

Should she, for instance, have accepted an invitation out to dine during this period of gestation, she can control the nervous irritability by a firm determination not to betray her condition to the assembled guests. It has been repeatedly asked, How can a woman suffer from morning sickness at one period of gestation and not at another? In other words, How is it that the attacks vary in severity in different pregnancies? Moreover, Why is it that one pregnant woman has morning sickness and another does not? Can this be explained on the hypothesis of reflex nervous irritability? Most assuredly!

The variability in the duration and severity of the affection is due to two factors: Greater or less irritation, and greater or less irritability. The question may here be asked, Is vomiting of pregnancy a physiological or a pathological process?

It has been stated that among women of a strong, robust type, vomiting of

pregnancy is exceptional rather than the rule, as is the case in Europe and America. But this fact has no direct bearing on the case; it goes without saying, that the stronger and less sensitive the nervous system the less general and severe will be the sympathetic disturbance. One certainly is not warranted in stating that the vomiting of pregnancy is a pathological process, for it is due to a purely physiological cause. There exists no morbid alteration in structure or function of the nerves. The irritability is not pathological but physiological, depending upon the degree of sensibility of the nervous apparatus. Yet it has been claimed by some investigators that this very exaltation is evidence of some pathological lesion. Surely not. It were, it seems to me, as reasonable to declare a person's brain diseased because he is irritated by Wagner's music, in which he finds no harmony, as to declare that the sympathetic disturbance excited by pregnancy is due to some morbid process.

Again, if we select two galvanometers, one registering the weakest electric current, the other equally well constructed, but less sensitive, we cannot say that the former is any more perfect than the latter; they differ simply in the degree of their sensibility. Difference in sensibility within certain prescribed limits is a physiological, not a pathological fact. While vomiting, as Austin Flint points out, is not, strictly speaking, a physiological process, yet under these circumstances it is far from pathological; rather let us say it is the pathological expression of a physiological process. The vomiting of pregnancy, unless complicated by some morbid process, never gives rise to alarming symptoms or threatens life. If prolonged beyond the period of quickening, its continuance may be accepted as positive evidence of some complication, which a decided alteration in the character of the vomited matter will usually indicate.

Cases of pernicious vomiting call for diligent search for organic lesions in the nervous system, or structural changes in some of the generative or associated organs. That the vomiting of pregnancy occurs in healthy, strong women almost as frequently as in their less robust sisters, though in a milder form and of shorter duration, only confirms the view as to its physiological nature. The view advanced, that the difficulties of parturition are proportionate to the severity and length of the morning sickness, one is scarcely prepared to accept. The gravity of the digestive disturbance is to be estimated by the amount of nervous irritability, while the difficulties attending parturition may be classified under two heads: maternal and fœtal. The former including uterine inertia, pelvic deformity and rigidity of the soft parts; the latter abnormal size of the fœtus and malpositions of the fœtus. Surely no such conclusions are justified, for the reports from the large lying-in hospitals of both America and Europe unmistakably prove no such relation exists. Females who have suffered great annoyance from morning sickness have frequently as easy and sometimes more rapid labors than those who have almost wholly escaped this unpleasant early indication of pregnancy. Therefore, in conclusion, it would appear from a study of this affection: First, that the vomiting of pregnancy is due to a reflex irritation produced by the developing ovum acting upon an exalted nervous system. Second, that it is not an affection of great gravity and need occasion no anxiety or alarm. Third, that active treatment is rarely demanded, as it is only a disturbance of a few weeks at the most. Fourth, that the severity of the gastric trouble is no indication of the character of the subsequent labor. Fifth, that where the affection persists beyond the period of quickening, it is due to pathological causes, which must be discovered and treated accordingly. (*For discussion, see Society Reports.*)

CASE OF INVERSION OF A NON-PUERPERAL UTERUS.*

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This case seems to me of interest because of the comparative rarity of the condition. I give it simply as a contribution for clinical discussion.

'Mrs. H., aged forty-three, in November, 1890, complained of having had bearing-down pain for some months, and a slight vaginal discharge which had recently become offensive. Menstruation had been regular, and there was no great loss of blood

* Read before the Philadelphia County Medical Society, December 23, 1891.

at her usual periods. The woman had been married eight years; had had one miscarriage, but no children.

"Vaginal examination revealed a reddish mass protruding from the uterus through a well-dilated os. As this was evidently a submucous fibroid tumor, a drachm of fluid extract of ergot was ordered to be taken three times a day, and douches of corrosive sublimate (1:4000) to be used twice daily. A little later the vaginal douche was changed to carbolic acid solution.

"About ten days after I first saw her the patient was etherized, and a sloughing, friable mass removed with the fingers and forceps, aided by a curette. The mass was about the size of a small orange. The patient recovered promptly and was discharged from treatment in about two weeks' time.

"Three weeks later I was sent for to see the same woman, who was then very emaciated, exceedingly week, and suffering intense pain in the abdomen, with the knees flexed upon the pelvis, and with an exceedingly fetid, profuse, and sanguinolent discharge from the vagina.

"Pressing my hand upon the abdomen, I found the bladder greatly distended with urine, and upon investigation I discovered that she had not passed any water for several days. Catheterization relieved this condition, and examination by the vagina showed the existence of another sloughing fibroid tumor. This was readily removed with the forceps and fingers. The patient recovered promptly, though she was still weak when last seen.

"About three months later she came to my office exceeding pallid, with the statement that for some time she had been suffering from most profuse uterine hæmorrhages. Examination revealed protruding from the vulva a mass about the size of a small apple. Constant loss of blood was taking place, and the patient was so anæmic that she nearly fainted in my office, and had to be sent in a carriage to the Polyclinic Hospital. The vagina was packed, and the patient given full doses of quinine and whiskey. This was in March, 1891. After having been kept in bed for several days she was etherized, and a full examination of the uterine condition made. I found what I had previously suspected—a small growth attached to the fundus of the uterus which had caused inversion of that organ. The mass occupying the vaginal outlet and the vagina was, therefore, the uterus, which had been turned inside out, with the attached polypoid, fibroid tumor. I readily tore loose from the mucous membrane of the inverted uterus what was found to be two small fibroid tumors, one about the size of a black walnut, and the other rather smaller. They are shown on the plate containing the specimens, but are now shrunken from long immersion in alcohol.

"An effort was then made to replace the inverted uterus by continuous pressure made with the finger introduced into the vagina. This was continued for a long time, but proved ineffectual. I considered at the time the propriety of removing the inverted uterus by performing partial or complete vaginal hysterectomy. It seemed to me, however, that it would be wise to make a further attempt at replacement before adopting radical measures. The patient was accordingly kept in bed nearly two weeks in order to build up her general health by stimulus and tonics, before making further attempts at invaginating the inverted uterine walls.

"She was then again etherized, and a prolonged effort was made at replacement by means of the fingers and Aveling's repositor. The manipulation was kept up for an hour and a half, but was absolutely useless, although the pressure was made in a very continuous manner. The patient became so weak that I feared she might die upon the table, and I therefore abstained from further manipulation and again put her back to bed.

"Two weeks later another effort was made to overcome the inversion of the womb. I was assisted on this occasion by Drs. Baldy, Baer and Anna M. Fullerton, whose counsel and aid I felt that I greatly needed. The abdomen was opened by a median incision, when the coils of intestine occupying the pelvis were seen united by recent lymph, evidently due to the traumatism of the previous manipulations. An endeavor was made to correct the condition of the uterus by means of strong forceps introduced through the abdomen to dilate the uterine neck, while pressure from below was made with the fingers in the vagina. Although these manipulations were performed by such skilful operators as those I have mentioned, we were unable to make any marked impression upon the displaced organ. Unfortunately, I had not provided myself with the most approved form of forceps. I then pushed through the fundus of the uterus a large needle carrying a strong piece of fishing-line to which was attached at the vaginal end a button of soft metal. I hoped that traction on this cord through the abdominal wound would, by means of the button pressing upon the mucous membrane of the uterus in the vagina, cause the uterus to assume its proper condition. While dilatation of the inverted fundus was made by means of the forceps, traction was made upon the string and pressure upward through the vagina. The muscular contraction of the uterine neck, however, prevented anything being gained by this manipulation, although the force applied was such as to finally cause the button to pull through the fundus of the uterus and to make its exit into the pelvis. After spending considerable time in these unsuccessful attempts, I finally did a partial vaginal hysterectomy, removing the inverted portion high up and stitching the edges of the uterine wall at the fundus together. This procedure was resorted to only after the patient had been under ether for three hours and was so overcome by shock that her condition was extreme. She did not react, her temperature not rising above 95° F., and she died within a few hours.

"The abdominal wound was then opened, and a very small amount of blood found near the stump of the uterus. Evidences of non-septic traumatic peritonitis due to the previous manipulation were present, as has been stated in the account of the last operation."

In looking back upon this case, I cannot but feel a sense of regret that the more radical operation of vaginal hysterectomy was not done at the time that the patient was subjected to operation for removal of the tumors causing the inversion. My desire to avoid an operation accompanied by shock and hæmorrhage at the time she had been so depressed by violent and repeated flooding, made me adopt what at the time seemed a less radi-

cal course. The extreme difficulty of dilating the uterine neck in cases of inversion was not appreciated by me until I found my attemps at replacement futile. (*For discussion, see Society Reports.*)

SOCIETY REPORTS.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

Stated Meeting, December 9 and 23, 1891.

THE PRESIDENT, JOHN B. ROBERTS, M. D., IN THE CHAIR.

Dr. T. B. Schneideman read a paper on "Ophthalmia Neonatorum as a Cause of Blindness." (See p. 129.)

DISCUSSION.

DR. GEORGE E. DE SCHWEINITZ: Unfortunately, I came into the room too late to hear the first portion of this paper. There is no question that bichloride of mercury, under ordinary circumstances, is an excellent germicide, but in spite of the good results which have been reported, I am very much against the use of strong solutions of this drug in ophthalmia neonatorum. It is true that investigations have shown that a solution of 1: 10,000 will retard the vitality of certain bacteria—for example, staphylococcus pyogenes aureus; but in ophthalmia neonatorum and in gonorrhœal ophthalmia, the characteristic behavior of the gonococci is their residence within the living cells, and under these circumstances I do not believe it is possible for irrigations of bichloride of mercury to act in their ordinary germicidal function. Moreover, I am convinced from clinical and direct histological experience that strong solutions of sublimate have a distinctly deleterious effect. I need not refer at any length to the disastrous results to the cornea that have occurred from the use of this drug in strong solutions during cataract operations. Especially is this true when they have been employed to irrigate the anterior chamber. It is of the highest importance during ophthalmia neonatorum that the epithelial surface of the cornea shall be kept intact; and while I am not prepared to say that the use of a strong solution can actually produce an abrasion, I am well satisfied that it adds distinctly to the dangers of the case. A recent European investigation in regard to the effect of this drug upon the cornea has demonstrated its capacity for producing changes that might well make one hesitate in its employment in very active strength. It should be remembered that during the height of an attack of ophthalmia neonatorum, the resisting power of the cornea is materially decreased, and hence very irritating solutions, no matter of what composition, are to be deprecated. I beg to be understood in this matter; I do not for one moment dispute the value of bichloride in purulent affections of the conjunctiva, but I deem it inadvisable to use the drug in strong solution, and believe that it is impossible to employ it *safely* in such strength that it will act as a *true germicide*. Moreover, it has been shown that bacteria in the presence of albumen have the power to reduce bichloride of mercury to calomel. Now, calomel, to a certain extent, is a germicide, but must have very inferior qualities under these circumstances. There does not seem to be any objection, for cleansing and antiseptic purposes, to a strength of 1: 10,000 (Cohn, in his recent book, recommends (1: 5000). A convenient strength is a grain to the pint—*i. e.*, about 1: 7500. In the Philadelphia Hospital, as my colleague, Dr. McKelway, will testify, we are in the habit of using alternately a solution of bichloride of mercury, a grain to a pint, and a saturated solution of boric acid. If the cleansings are made hourly, first one and then the other drug is employed. Boric acid is without germicidal value, but it is an excellent slightly astringent cleansing agent.

Referring to the other portions of the treatment advocated by the Doctor in his paper, I beg to agree with him most emphatically—*i. e.*, with his use of nitrate of silver. It should not be employed in the earlier stages, or in any stage in which there is much infiltration and the formation of false membrane; but when there is free secretion of yellow pus, when the lids are supple, when the conjunctiva is covered with hypertrophied papillæ and positive granulations, nitrate of silver, in the strength of ten to fifteen grains to the ounce, is the germicide *par excellence*. Applied carefully with a cotton mop, and properly neutralized, if strong solutions are employed, any irritating effect upon the cornea may be avoided. It acts in three ways: as a germicide, because it is at the same time a superficial caustic, destroying a layer of epithelial cells, and probably the bacteria which are contained within them; as an astringent; and as an alterative, using that term to imply its efficiency to alter the nutrition of a mucous membrane which is inflamed.

In regard to the other solutions which various surgeons have employed in this condition—carbolic acid, aqua chlorini, weak solutions of nitrate of silver, etc.—my experience is limited. They come to us endorsed with high authority. In regard to one drug, however, I wish to place myself on record—namely, pyoktanin. I hope that no one will treat cases of purulent ophthalmia in the newly-born with this drug.

Finally, I may say that, in my belief, the more or less continuous application of cold is of great value in the earlier stages. The essayist has referred to atropine and eserine, evidently giving his preference to the former drug, should corneal ulceration indicate its use. I would reverse the order and place eserine first, provided no iritic complication contra-indicates its instillation.

DR. CHARLES H. THOMAS: There is one suggestion growing out of what Dr. Schneideman has said which seems worthy of further amplification—that is, the question of some legal enactment which shall help to prevent the blindness which is so frequently the result of ophthalmia neonatorum. Such a law has been enacted by the State of New York, and there has been some attempt to establish one in the State of Pennsylvania. It seems to me that there is no place in the State of Pennsylvania where a movement with this object in view could be more effectively inaugurated than in this society. It is my hope that all who have heard this very able and true statement, will resolve themselves into a committee to further the enactment of such a law as has been suggested. There is no question as to the propriety of compelling midwives to report such cases, and I am not sure but that we

could go further with propriety and require medical practitioners to report these as well as other cases of infectious diseases. There are, of course, many physicians who should not be put to this trouble, but there are others who see but few such cases, and it would have a wholesome moral effect upon all to feel that this disease was dignified enough to require a report to the Board of Health.

DR. CHARLES P. NOBLE: I will speak upon this subject from the standpoint of the obstetrician rather than from that of the ophthalmologist. There are several points which interest me. I am much pleased to find that so long ago as 1807, some one had insisted upon the fact that the treatment of *ophthalmia neonatorum* should begin with the mother. This has been insisted upon by various obstetricians, and I have myself long felt the importance of it. It has been a rule with me for years to pay attention to the question of vaginal discharges in pregnant women. If there is a free vaginal discharge, even though no complaint is made of its irritation, I have always made a local examination, and if vaginitis were found to be present, have insisted upon systematic local treatment. I think that this is a most important point, and one that is even more important than the early treatment of the eye. If we can prevent infection, we do not need the early treatment of the ophthalmia. Some years ago, when connected with the Lying-in Charity, I saw quite a number of cases, and I have had several in private practice. I may say that among these cases there was only one in which an eye was lost. This occurred in a syphilitic infant. In this case, Dr. Lautenbach acted as a consultant, so that the child had everything that ophthalmological science could do for it. The treatment used at the Lying-in Charity was frequent irrigation with a saturated boric acid solution. When the discharge was very free, it was used as often as every half hour, together with silver nitrate solution (ten grains), used twice daily. It was thought that advantage was derived, particularly when the swelling was great, from the application of cold compresses.

Speaking still from the standpoint of the obstetrician, I should advise that the practitioner always avail himself of the counsel of an oculist in the management of such cases. He will thus be saved the anxiety and regret of occasionally losing an eye and forever injuring the prospects of the infant.

On motion, the following committee was appointed to confer with the State Board of Health relative to this subject: Drs. T. B. Schneideman, C. H. Thomas, Benjamin Lee, Edward Jackson, G. E. de Schweinitz.

DR. T. RIDGWAY BARKER read a paper on "Some Mooted Points Concerning the Vomiting of Pregnancy." (See page 133.)

DISCUSSION.

DR. CHARLES P. NOBLE: Dr. Barker prefaced his remarks by saying that he should not take up the matter from a theoretical standpoint, and that he would not present the theories held by others, but would study it from the standpoint of anatomy. I think, however, that the theory he advances, that the vomiting of pregnancy is reflex in its origin, due to the growth of the ovum, is a very old one. The are a great many theories to account for this affection. Among the most important is that held by Grailly Hewitt—namely, that the vomiting is due to induration or inflammation of the cervix or to flexion. Dr. Hewitt has gone very fully into the subject, and while we may not agree that this is the only cause of vomiting of pregnancy, yet anyone who has studied the large number of cases which he reports, cannot help but feel that there is a close relationship between exaggerated flexion of the uterus and also induration of the cervix due to inflammatory trouble and the vomiting of pregnancy. I have myself not infrequently seen this combination. I have also seen vomiting associated with more or less endometritis, and with induration and thickening of the cervix which was present before pregnancy took place. Again, the uterus may be more or less fixed by old inflammatory trouble, and when it becomes pregnant it is prevented from rising into the belly, as is usually the case, and in that way also the reflexes are increased. Again, we know that the uterus may be retroverted and caught under the promontory of the sacrum, and may then be prevented from rising into the abdomen, and may produce such reflex symptoms. I am satisfied that old inflammatory trouble in the pelvis has a great deal to do with the vomiting of pregnancy. It, however, simply acts to increase the reflexes from the uterus.

A more recent theory, and one supported by so eminent an authority as Kaltenbach, is that the vomiting of pregnancy is hysterical. I think that there is no doubt that a certain number of cases are due to hysteria. But I would not go so far as to hold that all cases are due to this cause.

There is no question that not only do we have as a result of pregnancy changes in the pelvis, but the whole body of the woman increases in size and undergoes changes. The entire vascular system becomes hypertrophied, and the heart also becomes enlarged. We know that pregnancy changes the entire form of the woman. The entire system is involved, and we can readily understand that congestion of the alimentary canal can be brought about. We all know that the nervous system in the pregnant woman is extremely irritable. It resembles the nervous system in children. For this reason, irritation from the pelvis which ordinarily would not be sufficient to cause reflex symptoms, can do so at this period.

The Doctor assumes that the reason why primiparous women are more apt to have vomiting than multiparæ, is because the uterus of the multiparous woman is larger, and therefore the growth of the ovum would not cause so much distention. There is no question concerning the fact, but the explanation is not satisfactory.

It is true that the uterus of the multipara is larger than that of the primapara. It is also true that the abdominal walls are more relaxed, giving a less degree of intra-abdominal and intra-pelvic pressure. The woman is better prepared for pregnancy, having already been pregnant. The mental condition is probably not so disturbed, and the emotions not so excited in the multipara. All these points must be considered. Moreover, it must not be forgotten that the uterus grows as well as the ovum, so that it is at least questionable whether the ovum distends the uterus. Does it not simply fill it?

It seems to me that the practical outcome of the whole matter is that, given a serious case of vomiting in pregnancy, it is the business of the practitioner to find the cause of the trouble.

Whether it is extrinsic purely—due to indigestion or uræmia; or whether due to excitability of nervous system or to hysteria; or whether some pelvic lesion is the source of irritation. If this plan of treatment were followed, better results would be obtained.

Dr. John B. Roberts reported a "Case of Inversion of a Non-Puerperal Uterus." (See p. 135.)

DISCUSSION.

DR. CHARLES P. NOBLE: It has been my experience to see two cases of inversion of the uterus, and in both cases the attempts at reduction failed. The first case I saw at the Lying in Charity, and was, I think, a long-standing post-puerperal case. Manual reduction was tried, but abandoned for the reason that the uterus was soft and macerated. In this case the uterus was amputated and recovery occurred. The second case I saw with Dr. Kelly, and was present at an operation in which he opened the abdomen. The abdominal neck of the inversion was dilated with forceps, and manipulations were made with one hand in the belly and one in the vagina, but the effort at reduction failed. In that case, Dr. Kelly took out the whole uterus, and the patient made a good recovery.

Speaking of the treatment, Dr. Roberts did not mention one method which has met with excellent results. It is the method of gradual reduction advised by Dr. Aveling. Constant pressure on the inverted uterus is made through a repositor, which is attached by elastic bands to a support about the waist. A large series of cases has been reported in which this method has been employed with almost universally successful results. Of course, in some cases the presence of adhesions will prevent the reposition of the uterus. The reasons for the success of this plan is plain. The problem is to overcome the resistance of the muscular tissue in the upper part of the cervix, and to make it relax and dilate. This tissue is resistant enough to tire out the muscles of the surgeon when attempting rapid reduction, but gives way before the steady action of the rubber tapes. It seems to me that in a case of any standing, attempts at rapid reduction are inadvisable, and are liable not only to fail but to do harm. It seems to me that in a long-standing case of inversion, the thing to do would be to pack the vagina with an astringent tampon, and afterward apply the gradual method of Aveling. If that did not affect reduction, the best thing would be to do a radical operation. The question arises whether it would not be better to remove the ovaries and tubes, which would bring about a cessation of the hæmorrhage. This would be a simple matter, and I think that reduction in the size of the uterus would take place. If this were not done, I think that a simple amputation of the protruding mass would be quite a feasible operation; but, of course, the danger there would be that after the mass of the uterus was removed the remainder would reinvert itself, and possibly infect the peritoneal cavity. This could be obviated by using transfixion pins. My own feeling would be in favor of removal of the tubes and ovaries, and later to do a vaginal hysterectomy, if necessary.

DR. ROBERTS: In this case the uterus was not soft, but was as hard as a fibroid tumor. The tightness with which the neck grasped the inverted uterus was something astonishing.

I am somewhat familiar with two other cases of inversion of the uterus. One happened some years ago in the country. The practitioner did not know what was protruding after labor, and sent for Dr. Levis, who, after a good deal of manipulation, pushed the inverted uterus back. The second was also, I think, a puerperal case, and happened not long ago at the Woman's Hospital of Philadelphia; in this instance, the physician was able, after manipulation for several hours, to replace the uterus. It was perhaps the knowledge of these cases which led me to make such prolonged attempts at reduction. I see now that it was unwise, and I agree with Dr. Noble that if such a case again came under my care, I should be inclined to first remove the ovaries, and if that were not sufficient, to make a total hysterectomy. This patient was *in extremis* at the time, and I did not feel justified in doing a too radical operation when I removed the two small tumors.

SELECTED FORMULÆ.

INTESTINAL ANTISEPSIS.

The following formula is recommended by Dujardin-Beaumetz as a good intestinal antiseptic:

℞ Salol,
Salicylate of bismuth,
Bicarbonate of sodium, ää 150 grains.
M. and divide into xxx powders in capsules. S. One before breakfast and one before dinner.

—*Les Nouveaux Rémèdes*, November 8, 1891.

RESORCINE IN DIARRHŒA.

Menckle (*Centralbl. für klin. Med.*) who has, with gratifying success, employed resorcine in the treatment of diarrhœa in children and adults, highly recommends the following:

℞ Pure resorcine.....gramme 1.
Distilled water.....grammes 90.
Simple syrup..... " 60.
Camphorated tinc. of opium....gramme 1.
M. S. A dessertspoonful every two hours.

For children b tth the resorcine and the paregoric should be reduced to 0.50 grammes, and then the potion can be given in teasp onful doses every two hours.

—*Le Bulletin Médical*, November 11, 1891.

TUBERCULOSIS.

Arthaud proposes the following mixtures in the treatment of tuberculosis, especially in the second stage of the disease:

a. ℞ Iodide of potassium.....grammes 10.
Alcoholate of tannin..... " 20.
Glycerine..... " 150.
Alcohol..... " 50.
Banyuls wine.....q. s. for 1 litre.
M. S. A glassful after each meal.

b. ℞ Fluid extract of rhatany (50 per cent).....grammes 30.
Syrup of mulberries..... " 250.
M. S. A tablespoonful 5 times a day, to be accompanied by the administration, night and morning, of 10 drops of tincture of iodine in milk.

—*Le Progrès Médical*, December 5, 1891.

FUCHSINE IN CHRONIC ULCERS.

After washing of the ulcers with warm water, they should be touched with the following solution, as recommended by Rosenberg:

℞
Distilled water.....grammes 200.00.
Alcohol (90 per cent.)..... " 10 00.
Fuchsine..... " 0.70.

The ulcers are to be covered with gauze moistened in the same solution. The drug is said to diminish pain and suppuration, and to cause a rapid cicatrization.

—*Le Bulletin Médical*, November 11, 1891.

FOR FISSURES OF THE TONGUE.

The following solution is applied, by means of a pencil, in the treatment of fissures of the tongue:

℞
Phenic acid.....grammes 2.50.
Tincture of iodine,
Glycerine.....āā " 12.50.

—*Allgemeine med. centr. Zeitung; Le Bulletin Médical*, Nov. 11, 1891.

LARYNGEAL AFFECTIONS.

Schnitzler recommends the following mixture to be blown into the cavity of the nose and of the naso-pharynx, as well as into the larynx, in diseases of those parts:

a. ℞
Subnitrate of bismuth.....grammes 10.
Sugar of milk..... " 10.
Balsam of Peru..... " 2.
M.

The same author extols the following solution as a local application:

b. ℞
Chlorhydrate of cocaine.....grammes 0.50.
Balsam of Peru..... " 10 00.
Alcohol..... " 10.00.
Aromatic essence.....drops 5.

Schnitzler prefers the balsam of Peru to phenic acid, creasote or creoline, on account of its agreeable taste.

—*Revista de Ciencias Médicas de Barcelona*, December 10, 1891.

TOPICAL APPLICATIONS IN DIPHTHERIA.

Dr. George W. Peck writes in *The Medical News* that he has found the following to be an efficient application in the treatment of diphtheria. It can be employed in all stages of the disease, without danger to the patient. It should be applied often and thoroughly, by means of a brush or cotton swab, until the diseased membrane entirely disappears. In connection with this remedy he gives as much brandy as the patient will bear, and such other remedies as may be indicated:

℞
Acidi borici..... 3j.
Acidi lactici.....f 3j.
Glycerini.....f 3jss
Aquæ dest.....f 3ijss
Liq ferri subsulph.....f 3jss.
M. This solution may be used in full strength or diluted with water, as each case may require.

SULPHUR IN DISEASES OF THE SKIN.

Zadeck, of Kiew, who has made an especial study of the therapeutic uses of sulphur in cutaneous affections, recommends the following preparations:

For inveterate cases of *acne rosacea* and *seborrhœic eczema:*

a. ℞
Flowers of sulphur.....grammes 2.50.
Ointment of benzoate of zinc (or vaseline)..... " 30.00.
M. S. External use

b. ℞
Flowers of sulphur,
Spirit of camphor,
Glycerine,
Rose-water.....āā grammes 10.
M. S. To be applied over diseased parts, on retiring.

This is especially recommended in *acne rosacea* of the nose, and also of the face.

For *seborrhœa of the scalp:*

℞
Flowers of sulphur.....grammes 200.
Oil of sweet almonds..... " 90.
Glycerine..... " 90.
M. S. Externally applied; to be shaken before using

For *hyperhydrosis* of the hands, axilla, feet and other parts:

a. ℞
Flowers of sulphur.....grammes 2.00.
Powder of arrow-root..... " 15 00
Salicylic acid..... " 0.50.
M. S. To be powdered over affected parts.

b. ℞
Flowers of sulphur.....grammes 8
Sulphuric æther..... " 10.
Rectified alcohol..... " 60
M. S. To be applied over diseased parts.

—*Le Bulletin Médical*, December 16, 1891.

SYPHILITIC OTITIS.

Laurence Turnbull recommends the following prescriptions in the constitutional treatment of syphilitic diseases of the ear:

a. ℞
Red iodide of mercury.....15½ grains.
Iodide of potassium.....13 drachms.
Distilled water.....2 fluid ounces.
M. Dissolve and filter, then add simple syrup until the whole measures 50 fluid ounces S. One teaspoonful 3 times a day.

b. ℞
Bichloride of mercury..... ½ of a grain.
Arsenious acid..... ¼ "
Pyrophosphate of iron.....6 grains.
M. and make xxiv pills. S. One pill 3 times a day.

—*Annals of Ophthalmology and Otology*, January, 1892.

TREATMENT OF SCABIES.

Prof. Kaposi, of Vienna (*Wiener med. Wochenschr.; Gaceta médica catalana*, No. 7, 1891), recommends the following salve as most efficacious in the treatment of scabies:

℞
Adipis.....grammes 100.
Saponis..... " 50.
Naphthol, *B*..... " 15.
Cretæ pulverisat..... " 10.

The treatment should not necessarily extend over twenty-four hours. If there be pruritus present the amount of naphthol must be reduced; and if eczema, still less must be used, as the naphthol determines an active irritation.

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LEADING ARTICLE.

THE ACTION OF ERGOT AS A HÆMOSTATIC IN UTERINE HÆMORRHAGE.

Whatever may be our knowledge at present of the physiological action and therapeutic value of ergot, it is certain that many essential points regarding this interesting drug remained to be clearly explained experimentally and clinically. Opinion appears to be equally divided on the question of the action of ergot upon the circulation, for in looking over the literature of the subject we come across a mass of evidence replete with contradictory statements.

Thus, for instance, in regard to the effect produced by ergotine on the arterial pressure: First, the researches of Vogt, Holmes, Kohler, Eberts and H. C. Wood, which seem to show a decided increase; second, the results obtained by Herzmann, Borescha, Madelin and Wernich, showing a lowering of pressure; third, the investigations of Markwald, indicating that the blood pressure is neither increased nor diminished.

It is well known that ergot or its essential alkaloid exercises in hæmorrhage a decided action; that is, under its influence the flow is checked. How this phenomenon is brought about has not been definitely established. Leaving aside, for the time being, a centric vaso-motor influence (an influence which, according to most authorities, is not exercised by the drug), and referring especially to the effects produced by the remedy on uterine hæmorrhage, it is apparent that the drug exerts an action on the uterine vessels and nerve structures. This appears to be sustained by the recent experiments of Ellinger. In normal conditions, it has been found that asphyxia causes peristaltic contractions of the uterus, that they are even observed in curarized animals, and that they are prevented by previous section of the spinal cord. Asphyxia under these latter circumstances is powerless to excite the organ into activity. On the contrary,

ergot, which, under ordinary circumstances, is able to act upon the uterus as an oxytocic, retains the same power after previous division of the medulla spinalis —an indication that the action of the drug is a peripheral one. Ergot acts, therefore, directly upon the spinal cord or uterus; that it is upon the latter seems evident in the fact that it produces contractions in the excised organ. This admitted, the drug, to diminish hæmorrhage, must directly influence the uterine muscular fibre itself or else produce constriction of the arterioles. Neither view, however, is accepted by Ellinger, and following the opinion of Markwald, referred to already, to the effect that under the influence of the drug the blood pressure remains intact, he regards the hæmostatic action of ergot under a new and certainly untenable light. He believes that the remedy acts upon the blood itself, rendering it coagulable at more or less susceptible points of the vascular system.

The most recent and a very valuable contribution to the study of the actions of ergot is that of Hemmeter, published within a few months. The experimental investigation was carefully carried out by the author, and from the results obtained he finds, among other facts, that ergot increases the blood pressure, diminishing at the same time the number of cardiac pulsations. The increase was generally preceded by a primary fall of pressure, the unusual rise occurring not only in normal animals but also in those in which the heart was previously isolated from all nervous connection by section of the pneumogastrics and spinal cord. These results appear to corroborate those observed by Holmes, Eberts, Wood and others, and it is evident that the rise of arterial pressure is dependent upon an action of the drug on the heart or on the arterioles. From a purely physiological point of view, if the arterioles are made to contract, the blood pressure rises, but, at the same time, the increased pressure stimulates the vagi centres in the medulla oblongata, in consequence of which the pulse-rate falls, and thus we have the curves of the pressure and the pulse running in opposite directions. When this takes place it is assumed by physiologists that the change in the pressure is due to the arterioles. This is precisely what occurs under the influence of ergot, according to Hemmeter, and he, therefore, concludes that the drug produces an increase of the arterial pressure by an action upon the arterioles and not upon the heart.

Practically we know from clinical experience that ergot is not only an excellent oxytocic, but a most valuable hæmostatic; that it does good in almost all kinds of hæmorrhages. But the question at issue, whether this influence is due to an action of the drug on the arterioles, as is generally held, or whether it is due to an alteration on the blood itself, as is believed especially by Ellinger, remains unsettled, although it seems clear that the view of Ellinger is incorrect.

THE VISITING NURSE SOCIETY OF PHILADELPHIA.

There is a little society in Philadelphia which is accomplishing, in a quiet way, a most important and noble piece of work, and which deserves not only the hearty support of the charitably disposed, but emulation in every city and town in the country.

The chief objects of the society, as stated in the little pamphlet recently issued, are: First, to give a good nurse for a short visit to persons of means who can afford to fully pay for this care, but do not require the entire time of a trained nurse; second, to send an "Outside" nurse to a family in moderate circumstances where the service can be paid, but where there is no one to attend the sick person; third, to provide fully trained nurses for the sick poor, that by skilled care recovery may be hastened, and contagion and other evil consequences avoided.

It is the desire of the society to work under the orders of physicians among such patients as are neither suitable cases for hospitals nor able to obtain proper care at home. The nurse will visit each case once or twice a day, as may be required, and in extreme necessity will remain all day when possible. A moderate charge is made for each visit. As the nurses make visits daily, it is impossible for them to undertake contagious diseases.

Special nurses are provided for obstetric cases.

The society hopes for the co-operation of physicians both to help the destitute and those in narrow circumstances, and to establish among them a higher standard of hygiene.

As an evidence of the good work accomplished, we find by the report of the society that during the five years of its existence there were attended 2818 cases, and 35,703 visits made.

Nurses are furnished under the following terms:—

1. A *visiting* nurse is furnished without charge to those unable to pay for her service.

2. From those able to give the car fare, it is expected, being ten cents a visit.

3. For those in comfortable circumstances a visiting nurse can be furnished, but the charge must, in such cases, fully cover the expense to the society, fifty cents or one dollar a visit, according to the time required.

4. The "Outside Nurses" mentioned in this report must be paid by the patient according to agreement, as the society has no connection with them except keeping their names on file.

5. Visiting nurses will remain with a patient for the first twenty-four hours after a major surgical operation, and will visit after that daily as required. Should a patient need continuous care, an outside nurse must be engaged and paid for by the patient.

6. The hours of the nurses are from eight o'clock in the morning until eight at night. After that time they cannot respond to calls.

7. The nurses will visit in the morning those cases which have been reported the previous day, while those coming to the office before twelve o'clock will receive attention that afternoon.

8. The nurses are for the use of the public, and it is desired that physicians and others interested in the sick shall send for them. The service should be paid for whenever possible, as the society is supported entirely by charity.

We hope that the evident need of such a society in every large community, and the splendid work that has already thus been accomplished in this city, will be the means of stimulating others to follow in its footsteps. It is only when we or those near and dear to us are very ill, and need skillful attention, that we fully appreciate the invaluable offices of the Trained Nurse—the greatest luxury in medical practice of the century.

BOOK REVIEWS.

AGE OF THE DOMESTIC ANIMALS: BEING A COMPLETE TREATISE ON THE HORSE, OX, SHEEP, HOG AND DOG, AND ON THE VARIOUS MEANS OF DETERMINING THE AGE OF THESE ANIMALS. By RUSH SHIPPEN HUIDEKOPER, M. D., Veterinarian (Alfort, France); Professor of Sanitary Medicine and Veterinary Jurisprudence, American Veterinary College, New York, etc. Illustrated with 200 engravings, 8vo, 225 pp. F. A. Davis, publisher (Philadelphia and London), 1891. Price, $1.75.

The appearance of this work is an incident of importance to veterinarians, and horse and cattle owners and dealers. It is the first existing treatise upon the subject in the English language.

The author, in the preparation of the book, states that he has "attempted to prepare such a book as he feels would have been of interest and service to himself in his association with animals as a layman, and would have aided his studies and appreciation of the anatomy of the teeth, dentition, and means of determining the age. He hopes, also, that this work will furnish to students and veterinarians, knowledge which will aid in surgical operations on the mouth."

He has drawn freely from the French, German and English sources, both in text and illustration. The book is well planned, clearly written and printed, and is an excellent exposition of the subject.

A, B, C OF THE SWEDISH SYSTEM OF EDUCATIONAL GYMNASTICS. A PRACTICAL HAND-BOOK FOR SCHOOL TEACHERS AND THE HOME. By HARTVIG NISSEN, Instructor of Physical Training in the Public Schools of Boston, Mass., etc. With 77 illustrations 12mo, 107 pp. F. A. Davis, publisher (Philadelphia and London), 1891. Price, 75 cents.

In the teaching of Swedish gymnastics the author has found that the treatises on the subject for the most part are not sufficiently practical to be of use as a guide to inexperienced teachers. In the preparation of this little book he has avoided the use of technical terms, and has endeavored to furnish plain answers to the most frequent questions, besides giving directions and illustrative wood-cuts for exercises for children of different ages. The first two chapters contain questions and answers such as have been most frequently put to the author in his nearly fourteen years' experience as a teacher of gymnastics, and these two chapters will give a very satisfactory idea of the foundation of the "Swedish System of Gymnastics." Other chapters contain what are termed prescriptions for daily lessons arranged somewhat as follows:

Five daily orders of exercises for second and third class of Primary Schools. Six daily orders for the first class of the Primary Schools. Seven daily orders for the fifth and sixth class of the Grammar Schools. Nine daily orders for the third and fourth class and fifteen for the first and second class of the Grammar Schools. The book seems admirably to fulfill the purposes for which it was written.

TREATMENT OF BILIARY LITHIASIS.

Dr. Dujardin-Beaumetz (*La Sémaine médicale*, No. 51, 1891), employs as cholagogues:

1. ℞ Euonymin } ..... āā grammes 2 (grs. xxx)
Saponis medicinal }
Sufficient for twenty pills. Take one pill morning and evening.

2. ℞ Sodii salicylic.....grammes 15.
Aquæ..... " 250.
A dessertspoonful after each meal.

For the gall-stone colic one may try large doses of olive oil (200 grammes, —fl. ℥ vij—at a time). If this fail, then he advises hypodermic injections of atropine and morphine, according to the following formula:

℞ Morphiæ sulphat.....cgm. 10.
Atropiæ sulphat ..... " 1.
Aquæ sterilizat.....grammes 20.
Inject a (Pravaz) syringeful of this solution.

PERISCOPE.

THERAPEUTICS.

COCA AS A PROPHYLACTIC AGAINST INFLUENZA.

Dr. Sajous writes in the *Satellite:* The nature of influenza, the marked debility induced by it, and its sequelæ, all point to a remarkable depression of the general system. During its presence in the country, the prevalence and severity of other acute diseases were largely increased and the mortality from all other causes augmented. This condition of affairs continued for some time after the subsidence of the epidemic.

The value of coca as a tonic to antagonize any tendency to adynamia is too well known to require elaboration here. Its therapeutical effects tend to build up precisely what influenza tends to destroy —a fact instanced by the use made of coca leaves by the natives of Bolivia and Peru, which renders them capable of undergoing the greatest possible physical strain, and that frequently with sparse nourishment. This remarkable tonic action of coca in medical therapeutics has further been tested by Brown-Sequard, Dujardin-Beaumetz, Bell, Bouchut, A. McLane Hamilton, A. E. McDonald, H. M. Lyman, I. N. Danforth, P. S. Conner, and many other eminent physicians, too numerous to mention in the space at our disposal.

TREATMENT OF ANGINA PECTORIS BY COCAINE.

In a paper in the *Revue de Médicine*, the author strongly recommends the use of cocaine in angina pectoris, in the dose of ½ to ⅓ of a grain three or four times daily. He quotes four cases of this disease which were benefited greatly by this treatment. If the attacks do not cease immediately after taking the remedy, they completely yield to it, however, in about three days. Under its use the pulse becomes slower but fuller, and the quantity of the urine is augmented. The author refers to some observations previously made by him, which appeared to show that the inhalation of oxygen in this disease did much good; he therefore suggests that it should be tried in conjunction with the internal administration of cocaine.—*Med. Chronicle.*

A NEW REMEDY FOR PHTHISIS.

Hardly a week passes without some fresh drug being proposed as an infallible cure for phthisis. This time the remedy is monochlorophenol, recently prepared by Signor Tacchini, a chemist of Pavia, and tried by Dr. Passerini, of Casate-Nuovo. The drug is a powerful antiseptic, free from the disagreeable odor and from the caustic and irritant action of the related compound, trichlorophenol. It is recommended as an inhalation in various affections of the respiratory passages, and particularly in pulmonary tuberculosis. Monochlorophenol is very volatile, giving off vapors much heavier than air, which are, it is supposed, able by their weight to penetrate even into the alveoli when inhaled. The drug is, according to Dr. Passerini, always well borne even in cases of advanced phthisis. Under its influence the sputa diminish in quantity and lose their purulent character; the bacilli become less numerous, sleep and appetite are restored, and body weight increases. A complete cure is reported in five cases after one or two months' use of the drug, symptoms being undiscoverable even five months after leaving off all treatment. We think we remember the same claim being made for other drugs, all of which have, however, after a brief reputation, fallen into the limbo of neglect.—*Brit. Med. Jour.*

THE TECHNIQUE OF MASSAGE.

The forms of disease to which Zabludowski directs attention with reference to the use of massage, are:

1. Traumatic neurosis, with scars from the original injury, productive of nerve disturbances, that is to say, cases in which an individual changed by disease, reacts in an abnormal fashion to the bodily ailment.

2. Affections of the peripheral nerves; (neuritis and perineuritis) especially of traumatic origin.

3. Nervous dyspepsia with constipation, increased formation of gas and tenderness of the abdomen, caused by displacement and pressure upon the intestines, with or without a floating kidney.

In cases of traumatic neuroses in which the simple touching the scar produces a severe pain. Z. recommends leaving the injured spot entirely alone at first.

One should begin the mechanical manipulation as far as possible from the scar and should work gradually from the centre toward the periphery. At each treatment gradually approach the neurotic field, and thus, in three or four treatments it will be possible to directly seize the scar without producing any irritation, which tends to the development of cramp or similar effect. In cases in which massage works very promptly, the result is to be explained by psychical influence. In diseases of the peripheral nerves (neuritis and perineuritis, paralyses of single nerves and muscles) which occur especially in the extremities, it is desirable to effect the reserptive processes, and to establish a "dynamic effect." Z. recommends here a method which enables us to influence the deeper structures without much irritation. This is intermittent pressure which is exercised by the hand of the masseur making centripetal rolling motions.

In conclusion Z. describes a method which he applies for constipation due to atony of the bowel, whether it be with general nervous phenomena, or with severe pain and distention of the abdomen, high fever and giddiness. Inasmuch as we have to do with a local mechanical obstruction to the movement of the intestinal contents, a mechanical treatment is naturally the one which first attracts attention. Z. conducts massage according to a method of his own, which requires the knee-elbow position.—*Review in Schmidt's Jahrbücher, p. 30.*

TREATMENT OF RINGWORM.

Kerley (*N. Y. Med. Journ.*, October 10th) advocates the following methods of treatment: Two grains of bichloride of mercury dissolved in a small quantity of alcohol are added to one ounce of equal parts of kerosene and olive oil. This should be thoroughly rubbed into the diseased areas, and the whole scalp thoroughly saturated once a day, until a smart inflammation is produced; the part should then be covered with a simple ointment until the inflammation has subsided, when the treatment may be resumed, but the applications may be made less frequent and in a less vigorous manner. A variation in the treatment, which he sometimes found useful, was to rub into the diseased areas on alternate days with the above a saturated solution of iodine in absolute alcohol. In all cases the scalp should be frequently washed with soap and water. Slight inflamma-

tion of the scalp was induced in most of the cases, and in a considerable number a moderately severe squamous condition of the scalp followed on the cure. This was remedied by the application of a 3-per-cent. solution of resorcine frequently. This treatment effects a cure in from six to nine weeks.

KNEIPP'S WATER CURE.

Dr. A. Schleichner (*Zeitschrift für Therapie*) describes the system of hydrotherapeutics practiced by a priest named Pfarrer Kneipp in a small Bavarian village, who, like Priessnitz, has created quite a *furore* in Germany and has gained numerous adherents. Kneipp's system consists in certain hydro-therapeutic measures, the administration of simple household remedies, and the regulation of the patient's mode of living. To strengthen the nervous system, the patient is advised to walk on moist grass or in a bath-tub filled up to his ankles with cold water. The cold pack, consisting of several thicknesses of coarse linen, is employed in certain cases, the sheet being wrapped around the entire body from neck to groin or applied to the abdomen or back; it should not remain longer than an hour. As regards the use of baths, the cold foot-bath should last from one to three minutes; the warm foot-bath has a temperature of 99° F., and lasts from ten to fifteen minutes and is followed by a cold bath of half a minute's duration. A "half-bath" is administered by letting the patient stand, kneel or sit in water while the back and chest are washed; it should not last longer than three minutes. The sitz-bath is taken before going to bed; its duration may vary from one-half minute to three minutes. If taken warm, it may last for half an hour, and an infusion of herbs is usually added to the water. The full bath, according to Kneipp, is the more effective the shorter its duration, and is mainly indicated in febrile conditions. The warm full bath has a temperature of 90° to 99° F., and consists of an infusion of pine-needles. It is followed by cold affusion or washing of the body with cold water. Steam-baths are carried out in a primitive manner, the steam being supplied by a kettle of boiling water. The cold affusion is made with a sprinkling-can from which the sprinkler has been removed; the entire body, or simply the affected parts, may be acted upon; in weak persons the water should be tepid. Another favorite manner of applying water is to sponge the body or affected parts with a wet coarse towel. This procedure is best done in the morning and should not last more than two minutes.

Kneipp advises that the patient should drink whenever thirsty, but never large quantities of fluid at a time, and none during the meal. His materia medica consists of simple domestic remedies. As regards the dietary, he is opposed to excessive use of meats; does not interdict beer or wine in persons accustomed to their use, but thinks less favorably of coffee and tea. He urges an abundance of fresh air and exercise, and advocates coarse linen underwear in place of woolen garments.

TABULATED TREATMENT OF SYPHILIS.

Dr. Bontemps, in a paper read before the Société de Médecine d'Angers, gives the following table for the systematic intermittent treatment of syphilis:

Months—Years.	1st	2d	3d	4th	5th	6th	7th	8th	9th	10th	11th	12th
1st.....	M	M	(	M	R	M	R	M	I	R	M	I
2d.....	R	R	I	M	I	R	R	I	M	I	I	R
3d.....	R	S	M	I	I	R	S	R	I	I	R	S	R	M	I
4th.....	R	S	I	I	I	R	S	R	S	I	I	R	S	R	S	I	I

M—Mercurials; I—Iodides; R—Rest; S—Sulphur.

This table is based upon the methods of Fournier and of Martineau. Taken altogether, we find that there are ten months of mercurial treatment; twenty of iodide treatment; six of sulphur treatment, and eight months of rest. To my mind there seems to be too much time devoted to the iodides; a certain portion could be profitably devoted to the exhibition of the mixed treatment, and probably with benefit to the patient. Another point is the long periods of rest at the inception of treatment. I have found that the same amount of rest, divided into shorter periods, with correspondingly shorter periods of treatment included, is productive of better results and reduces to a minimum the tendency to extensive or destructive lesions.

ICHTHYOL IN PYROSIS.

Dr. Thör (*Norsk Magazin for Lægevidenskaben*, No. 5, 1891) has found ichthyol of use in pyrosis, the sour eructations disappearing after one to two one-centigramme (one-fifth grain) pills or capsules. No disagreeable side- or after-effects.

TREATMENT OF ESSENTIAL PAROXYSMAL TACHYCARDIA.

Dr. Huchard (*Rivista Clinica e Terapeutica*, No. 14, 1891), recommends physical and moral rest, lying upon the left side or the back, with the head low, slight compression of the right or left carotid. The chloride of methyl spray, vesicatories or the cautery may be applied to the back of the neck. During the attacks digitalis by the rectum, on account of the gastric intolerance, will be of service. Injections of caffeine or ether are useful in the cardiac weakness. Nitrite of amyl and trinitrine are contraindicated. During the intervals the patient should abstain from coffee, tea, liquors, exciting substances and tobacco. The general treatment is physical and moral rest, and the use of arsenic as a nervine. In tachycardia, with arterial hypotension, the writer advises the sulphate of quinine with ergot in the following formula:

℞ Quinine sulph.
Extr. aquos. secal cornut., } āā gm. 4. (3j).
Extr. nuc. vomi., cgm. 10. (grs. jss).
Sufficient for forty pills.
Two pills two or three times daily for fifteen to thirty days.

As a prophylactic, the writer recommends digitalin, taken morning and evening for three weeks, fifteen drops of a solution 1 : 1000 of crystallized digitalin.

TYPHOID FEVER TREATED BY YEAST.

Dr. M. B. Thomson, in a recent number of an Australian contemporary, records some notes of the treatment of cases of typhoid by yeast. In all thirty-seven cases were so treated. Ten were severe, the temperature reaching or exceeding 104°; eight moderately severe, temperature reaching or exceeding 103°; eleven were mild, although the temperature reached 103°; eight were very mild, the temperature never being above 102°. In all recovery took place without any relapse. This point is worthy of note, inasmuch as, according to Fagge, the average proportion of relapses is from two to eleven per cent.—*Med. Press.*

A VEHICLE FOR BISMUTH.

Dr. Taurence (*Gazzetta degli Ospitali*, No. 24, 1891), has experimented with various substances in order to find the best vehicle to keep bismuth in solution, and finds glycerine to best fill the requirements. Four parts of glycerine to one of bismuth may be employed.

MEDICINE.

SYSTEMATIZED DELUSIONS OF AMBITION WITH HALLUCINATIONS AND IDEAS OF PERSECUTION IN A CASE OF MENTAL DEGENERATION.

M. Magnan, in a recent clinic, showed the following case:

K., native of Holland, received a good education; had typhoid fever in childhood. At the age of 18, entered a military school; there submitted twice to be examined to pass for an officer. At the age of 27, married a woman who brought him 40,000 florins. Nothing especially occurred until 1883. The king's son had been dead for some years. The second son also died and there was no one to inherit the throne of Holland. At this time he had some doubts as to his birth and origin, and gradually convinced himself that he was the son of the king. He made a retrospective examination of his whole life, bringing up all incidents which would serve to strengthen his delusion. At this time he began to fear persecution.

In 1883, while singing in church, he was suddenly apprised of the illness of his son and upon arrival home found him dead. He was persuaded that his son had been poisoned. He made an examination and filed a complaint, notwithstanding that the doctor who attended his son stated that he died a natural death. He thought the governess ought to be imprisoned ten years. His conduct now became exaggerated. He bought a fine house in the country, began to bet extensively in lotteries and soon failed. His wife and children left him alone with the two gardeners. One night he heard the dogs bark and said he would go and see what was the cause. It was the son of the burgomaster, who he said had come to assassinate him. At another time he took purgative pills, had violent colic and said he had been poisoned. Often he would overhear conversation in the streets of the Hague: "Here is the son of the king." He addressed the king a note asking for an interview and went to Paris during the arrangement of his affairs. Each month he offered one hundred francs to the consul of Holland to prove how much he hated to be banished. These, with other delusions and hallucinations, characterized this case.

THE VALUE OF THE PHYSICAL SIGNS AT THE APICES OF THE LUNGS IN SUPPOSED INCIPIENT PHTHISIS.

It is a fact well known to physicians generally that in health the percussion note at the apex of the right lung may occasionally be of higher pitch than that of the left apex. An examination of one hundred healthy symmetrical chests by Drs. Fussell and Adams, on the other hand, shows that,—

1. A normal condition at the right apex may be considered a diseased condition.

2. A diseased condition at the right apex may be considered normal.

3. The normal disparity in favor of the right apex may mask diseased conditions at the left apex.

In the *University Medical Magazine* for June, 1891, these authors publish a tabulated list of one hundred cases, taken as they presented themselves at the dispensary of the University of Pennsylvania, the diseases for which these cases were under treatment having no influence on the condition of the lungs.

When it is taken into consideration that the usual site of tubercular infiltration is at the apex of the lung, and that among the first signs of consolidation of the lung are higher-pitched percussion note, increased tactile fremitus and vocal resonance, the importance of the determination of the value of these signs is at once apparent. Of course there are other signs of incipient phthisis; one of which, prolonged expiratory effort, is very suspicious of approaching consolidation, and is a phenomenon which is seldom misleading. It is in those cases where these other signs are absent, masked, or very slight that these variations spring into greater prominence. Again, undoubtedly, the higher-pitched note, when existing normally at the right apex, is perfectly resonant; it lacks the deadened quality noticed in commencing consolidation. Yet this difference in quality is hardest to distinguish in just those cases where the greatest doubt exists, so that practially this difference is of no use. It is of the utmost importance that signs which are perfectly normal should not be mistaken for those of diseased conditions. On the other hand, it is equally important that we do not overlook diseased conditions at either apex, considering the signs as those of health. In the incipient stage of phthisis, so vital is the diagnosis for the future of the patient, and so slight are the symptoms and signs, that every straw adds weight to the conception of the case. A positive diagnosis is demanded by patient and as eagerly sought by physician. The disease is presented in its incipient stage oftener to the practitioner than any other disease, as its symptoms and results are so well known to the laity. Hence, in the majority of normal lungs, we have conditions which at once add suspicion to our conception of cases in which incipient phthisis is feared.

In examining this table, consisting of the reports of the condition of fifty-eight men and forty-two women, we find that eleven, or eleven per cent., have the same percussion note at both apices; nineteen, or nineteen per cent., have slightly higher-pitched note at the right apex; and sixty-nine, or sixty-nine per cent., have markedly higher-pitched note at the right apex, while one was higher pitched at the left apex. In the ninety-two cases where vocal resonance was taken, ten showed no difference at the apices; fourteen showed slight increase at the right apex, and sixty-eight marked increase. In ninety-three cases where the tactile fremitus was taken, no difference was found in eleven cases, slight increase on the right side in twenty, while sixty showed marked difference. Two cases exhibited marked increase of fremitus at the left apex.

In pursuing the examination, as far as possible, the results were obtained separately by each observer, compared, and then obtained together. Many cases where slight variation occurred were verified in this manner. One observer percussed the chest, while the other listened in such a position as to be unable to tell which apex was being percussed. Any case in which there was any difference of opinion as to the existence of any variation was put down in the list as equal on both sides. All the ordinary rules of percussion and auscultation were observed. There was no desire to force cases into one class or the other; the attitude was simply to endeavor to find the exact truth on the subject.

Supposing a case to present itself with higher-pitched percussion note, increased tactile fremitus, and vocal resonance at the right apex, the question, of course, arises whether this is a diseased condition. One of three errors may be made,—

1. A normal condition at the right apex may be considered a diseased condition.

2. A diseased condition at the right apex may be considered normal.

3. The normal disparity in favor of the right apex may mask diseased conditions at the left apex.

It is accepted by physical diagnosticians that the larger size of the right bronchus accounts for the increase of vocal resonance and tactile fremitus, both being due to the same cause,—increased transmission of the voice-sounds. As to the reason of the higher-pitched percussion note at the right apex, there is less clear and united opinion. The note at the left apex ought, if anything, to be the higher pitched; the explanations of the contrary conditions existing are not satisfactory. One explanation is that the liver at the base of the right lung deadens the wave-sounds from the tissue above, while the hollow viscus, the stomach, serves more as a sounding-board for the left lung. The degree of tension of the thoracic parietes and of the lung-tissue itself may account for it, as the greater the tension the higher the pitch.

In conclusion, the authors affirm—

That higher-pitched percussion note, increased vocal resonance, and tactile fremitus are normal at the apex of the right lung as compared with the left; that this normal condition can occur in such a number of cases and to such a degree as to cause in many instances a diagnosis of consolidation at the right apex; that finally, in deciding doubtful cases, other signs besides these three are necessary to formulate a diagnosis; continued observation of cases, where other signs are lacking, being necessary to watch the possible development of actual disease.

The authors report in detail three cases, which illustrate the existence of these three possibilities of error.—*Therapeutic Gazette.*

STERILIZATION OF METAL INSTRUMENTS.

Immersion of instruments in antiseptic solutions, particularly the two per cent. carbolic, is not sufficient to thoroughly sterilize them. Thorough mechanical cleansing is the first thing to do. After use, the instruments are rinsed in common water and laid in a hot soda and soap solution, and with a brush carefully scrubbed. They are then washed again and polished with so-called "*putzstein*" and alcohol and rubbed with chamois, and once more washed off with the soda solution and carefully dried. To sterilize them the use of dry heat requires too high a temperature and too long time. Boiling in soda solution is much better. The apparatus of Schimmelbusch, as made by Lautenschläger, is used. From a small box a spoonful (10 cu. cent.) of soda is taken and put in a litre of water for use in the sterilizer. Hanging with the box are a litre measure, hour-glass and match-safe. The instruments are allowed to boil from five to fifteen minutes, according to their size. The wire tray containing the instruments is then removed and placed in a pan containing a solution of one per cent. each of soda and carbolic acid.

CHANGES IN THE KIDNEY IN PHTHISIS.

The condition of the kidneys in phthisis has never been fully investigated. Several observers have described a fibroid condition. Becquerel and Rayher concluded that Bright's disease was very frequently associated with tubercular disease of the lungs. Peacock, in one hundred and seventeen cases of kidney-disease, found 30.7 per cent. of phthisis. Frerichs found that out of forty-two cases of Bright's disease six also suffered from phthisis. Bamberger stated that the disease was found in fifteen per cent. of those suffering from kidney-disease. In the *Centralblatt für Allgemeine Pathologie and Pathologische Anatomie*, February 1, 1891, Dr. C. von Kahlden publishes his results on the same subject. He is of opinion that slight degeneration of the renal epithelium is almost always found in active phthisis. It may, however, be so slightly marked that it is only visible on microscopic examination, and even then may be easily overlooked. The kidney may be either normal in size or somewhat enlarged. Microscopically the following conditions are noticed: The surface of the organ is smooth and yellowish in color; the capsule peels easily; the cortex is usually slightly thickened, and also yellow in color; the medullary portion is pale. The microscopic changes chiefly affect the cortex, the parenchyma being first attacked. The epithelial cells undergo fatty degeneration, but are occasionally replaced by fresh epithelial cells. The interstitial changes are, therefore, secondary, and generally slight, and take

the form of a small round-celled infiltration, and some increase of the connective tissue. The glomeruli also take part in the degeneration. The cortex is not uniformly affected, but the changes take place in patches. These lesions are evidently chronic, as is shown by the thickened capsule, the atrophy of some of the glomeruli, and the changes in shape of the epithelial cells of the tubules, these being altered from a club form to a cubical or cylindrical shape. Clinical symptoms which accompany the renal degeneration are unreliable. Albumen in the urine is rarely present. The author states that the condition is one of a chronic parenchymatous nephritis, and thinks that it may be caused by the poisonous products of the tubercle bacilli. —*Lancet.*

THE CELLS OF THE SPLEEN AND HÆMOGLOBIN.

Dr. Nicolai Hohlein publishes in his inaugural dissertation at the University of Dorpat a series of experiments made in continuation of the researches of Aug. Schwartz and Nicolai Hoffmann at the Physiological Institute of Dorpat. The former had shown that the protoplasm of various cells both destroys hæmoglobin and regenerates it, and Nicolai Hoffmann found in a hæmoglobin solution, which had been decolorized by spleen cells, an albuminoid; while the same solution, treated with hepatic cells, gave no albuminoid reaction. The author chose spleen cells, mixing them with three times their volume of diluted hæmoglobin solution. Decolorization took place on the average after twelve hours, and the color was completely recovered in from sixty to seventy hours. The author was then able to confirm the following conclusions Schwartz had arrived at. To regenerate a molecule of hæmoglobin, it is necessary to bring it into contact both with the cells and the decolorized liquor. Regeneration occurs also when the decolorized liquor is brought into contact with fresh spleen cells, but in this case the coloring is not so vivid as when the same cells are used which caused the decolorization. If the solution which has been decolorized by spleen cells is brought into contact with liver cells, all power of recoloring by the former is completely and irretrievably lost. The molecule of hæmoglobin is mechanically taken up by the cell which decomposes it, and during the period of complete decolorization of the liquor within the cell it is regenerated. The author adds to these the following independent results of his experiments. In decolorization, as well as in the process of regaining color, the quantity of the hæmoglobin solution is of less importance than its concentration, as with a certain medium degree of the latter all effects of the spleen cells cease. Regenerated hæmoglobin is distinguished from the original by being decomposed with greater facility by acetic acid, by its bright color and energetic oxidation. The albuminoid in the liquor which has been decolorized by spleen cells is cytoglobin. During the stage of decolorization, as well as that of regaining the color, a continuous new formation of cytoglobin is observed. This new formation of cytoglobin also takes place when the spleen cells are mixed with a 0.6 per cent. solution of chloride of sodium, but is in this case not so marked as when a solution of hæmoglobin is used. The hæmoglobin solution loses and the cells gain iron during the decolorization of the former; the reverse process takes place when the solution regains its color.—*Lancet.*

RELATION BETWEEN ALBUMINURIA AND THE RENAL CIRCULATION.

Dr. V. Casaretti, of Pisa (*Rivista Generale Italiana di Clinica Medica*, August 20, 1891), describes some curious results observed by him in cases of cyclical albuminuria. The experiments described were based on a previous observation of Dr. Landi, who had found that in a case of this affection he could for a time arrest the albuminuria by causing slight disturbance of the renal circulation by means of bandages applied to the limbs. The present observations were made on two cases of cyclical albuminuria, and on a third which presented the clinical signs of nephritis with swelling of the face, etc., but without other renal history. In the last case albuminuria was constantly present, but in the two first it was absent in the early morning, only very slight after the first meal, and pronounced after dinner. Application of "expulsive bandages" to the limbs had a most remarkable influence on these phenomena, the albumen disappearing entirely from the urine while the bandages were kept applied in the cases of cyclical albuminuria, and being very considerably diminished in the more serious case. Not only this,

but the effect was observable within a very short time after their application. The excretion of urea also was markedly diminished. As the author remarks, the alteration of the renal tissue must be very slight in these conditions if such a trivial alteration of the renal circulation can so rapidly modify or abolish the symptoms. The method may, if further observation should establish the above results, prove a useful one both in diagnosis and treatment.—*Brit. Med. Jour.*

PAIN IN HEART DISEASE: CONCLUSIONS FROM THE STUDY OF 483 CASES.

Nothnagel (*Zeitschrift für klinische Medicin*, Vol. XIX. No. 3) tabulates 483 cases of valvular disease of the heart with reference to pain. Lesions at the aortic orifice were most frequently accompanied with pain, while lesions at the mitral orifice were the least affected. Sixty per cent. of the cases of regurgitation were accompanied by pain, while only seven and one-half per cent. of the cases of mitral regurgitation had painful attacks. Curiously enough the combination of mitral regurgitation with aortic regurgitation seems to reduce the percentage of painful cases, only eighteen per cent. of such cases having painful attacks. He calls attention also to the frequency of pain in cases of disease of the heart-muscle without valvular disease. He holds that in a case where the diagnosis is uncertain, the occurrence of pain in the cardiac region, while, of course, not making the diagnosis sure, is of the greatest moment in pointing toward heart disease. Cases of arterial sclerosis, with cardiac hypertrophy, are much more frequently accompanied by pain than other forms of this latter class.—*Univ. Med. Mag.*

SURGERY

RESULTS OF TREATMENT OF REDUCIBLE HERNIA BY ALCOHOLIC INJECTIONS.

The original *modus operandi* of Schwalbe, says Dr. Theodore Zangger in the *Lancet*, who introduced this form of treatment in 1871, is slightly modified by Dr. Steffen, of Regensdorf (Zurich). A 70 per cent. solution of alcohol was used, and from two to four grammes of this fluid were injected round the saccus herniosus (hernial sac) after reposition of the hernia. The treatment was ambulatory; first one or two injections a week were made, then at greater intervals. Before being dismissed from medical supervision the patient had to go without the truss which he used during the treatment. The time of treatment varied from one month to two years and a half or more. In 293 cases there were 83 (62 per cent.) cures, 6 (48 per cent.) improvements, 9 (9 per cent.) of negative results. A cure was considered to have been obtained when, at least one year after dismissal of the patient, the hernia was neither to be seen nor felt during coughing or under intra-abdominal pressure, and when the patients, most of whom belonged to the laboring class, had been at their usual work for six or seven months. In 10 per cent. of the cases dismissed as cured the hernia returned, owing to various causes. The age of the hernia (*sit venia verbo*) was not without influence as to the result obtained, as will be seen from the following list:—

Duration of disease.	No. of cases.	No. of cures.	Per-centage.
Hernia incipiens . . .	11	11	100
Date, a few days . . .	10	10	100
Under ½ year	44	41	93.2
" 1 "	45	41	91
" 10 "	120	101	84.2
" 30 "	52	34	65.4
Over 30 "	5	4	80
Date unknown . . .	6	3	50

Dr. Steffen comes to the following conclusions: About four-fifths of small and medium-sized reducible herniæ can be cured, the wearing of a truss becoming in most cases superfluous. The prognosis improves the younger the individual, and the shorter the time the hernia has existed. Incipient cases should, therefore, be treated by injections, and not left to the chance of a spontaneous cure under a truss. Ambulatory treatment, with pauses of from four to seven days, gives better results than daily injection whilst keeping the patient in bed. In most cases the patient does better to continue his usual occupation, wearing a truss during the time of treatment. This method is also adapted to herniæ which cannot be retained by a truss, the latter being able to be worn, and keeping back the hernia after a course of treatment. In a few cases only toxic effects (alcoholism, urticaria, vertigo) were observed. This method of treatment is not entirely without danger; but accidents will be rare if due care is taken and regard paid to the anatomy of the respective parts.

CAMPHORATED NAPHTHOL IN SURGICAL TUBERCULOSIS.

Jules Reboul (*Centralblatt f. Chirurg.*) brings forward a new antiseptic made by incorporating 100 parts of beta-naphthol with 200 parts of finely powdered camphor, and then carefully heating until complete melting occurs, for the treatment of tuberculosis of those parts accessible to surgical treatment. This camphorated naphthol is an oily fluid, insoluble in water, but miscible with alcohol, fats, ether and chloroform. It is decomposed by exposure to the air, the camphor evaporating and the naphthol becoming crystallized. Light decolorizes it, but it may be preserved in dark, well-stoppered bottles. It is not a true chemical combination, but is probably only a molecular union. The antiseptic qualities of the new antiseptic depend, to a great extent, upon those of the beta-naphthol. Its antiseptic qualities have been proven by means of culture, as well as by clinical experiments, by R. It has been used with good results as an irrigating fluid in joints, bony cavities, tendinous sheaths, cold abscesses in the pleural and uterine cavities; and in addition to an interstitial injection, by instillation in cases of tuberculosis of the bladder, and in the preparation of dressings and disinfection of instruments. No poisonous symptoms have been observed, although the undiluted fluid was employed.

STERILIZING DRESSINGS BY MEANS OF STEAM.

Steam is now almost universally used for sterilizing dressings. In regard to the use of dressings impregnated with antiseptics, it should not be forgotten that dryness is a greater hindrance to the growth of germs than are antiseptics, and that it is better to use absorbent aseptic material than non-absorbent antiseptically-prepared stuff that allows stagnation of the wound discharges. It is very doubtful whether material which has been through the many processes necessary for its antiseptic impregnation is as free from germs as is that sterilized by steam. The toxic action of the antiseptic also makes its use undesirable. In using a steam sterilizing apparatus it is better to have the steam enter at the top and escape below; it is quicker and more efficacious. Lautenschläger's apparatus is used by Von Bergmann. This is composed of an outer asbestos jacket and two inner copper cylinders, between which the water is held. When the lid is on, the steam ascends between the two inner cylinders and passes inside to the dressings from openings in the top; it escapes from an opening near the bottom. Heat is applied by a gas jet beneath the apparatus, and it goes up along the sides between the outer copper cylinder and the asbestos jacket to escape by holes at the top. The dressing is allowed to remain three-quarters of an hour, subjected to a heat of 100° C. In order to avoid handling and exposure, the dressings are placed in tin kettles or boxes, having openings at the top and bottom which can be closed by means of a slide. The openings are left uncovered and the apparatus and dressings placed in the sterilizer. When sterilized, the slides are shut and the box taken to the operating clinic for use.

AMPUTATION OF THE LEG UNDER COCAINE ANÆSTHESIA.

Dr. R. H. Cowen writes in the *Internat. Jour. Surgery* that having seen no recent report of major amputation in which cocaine hydrochlorate has been used, he presumes that surgeons generally are slow in following Corning's method. The following case is his own:

Artie McPhail, a negro track-hand, was knocked from a trestle forty-five feet high, sustaining a fracture of the lower portion of the tibia and the metatarsal bones. When he came under his care, ten days later, he found him with an enormously swollen ankle, and a large suppurating wound opening into the neighborhood of the joint. Being unable, on account of the tremendous amount of swelling, to decide the exact nature of the injury, and leaning to conservative surgery, he tried faithfully antiseptic irrigation and drainage. Finding, however, no improvement, an exploratory incision was made under cocaine, revealing complete comminution of the tarsal bones.

He now resolved on amputation. The negro was very much afraid of chloroform, and positively refused to take it. He decided to use cocaine. After applying the rubber bandage above the site selected for amputation, he injected the cocaine as advised by Wyeth, carrying the needle just under the skin, elevating its point, and injecting as the needle was

withdrawn. This was done in four places, by which means anæsthesia was rendered complete all around the limb. He now proceeded to dissect the flaps. Then one or two punctures were made into the muscular tissue, around the limb, penetrating the periosteum, the fluid being ejected as he withdrew the needle. The operation was then completed. At no stage of the procedure was there the slightest pain. The patient, who was afraid of a pin scratch and was badly frightened beforehand was perfectly satisfied with the result and much astonished "that it did not hurt him."

There were no bad symptoms either during or after the operation. On the fifteenth day after, he removed the dressing for the first time. Union had taken place by first intention, with the exception of a small spot left for drainage, which was not as large as one's little finger nail.

RESECTION OF THE SPINE FOR SPONDYLITIC PARALYSIS.

Kraske (*Langenbeck's Archiv.*, Bd. 41, S. 831) discusses this subject at length. He had occasion to perform this operation several times, but the results were not so successful as one would be led to expect from Macewen's article. Paralysis from pressure is the kind most apt to be benefited by operation, but is usually better treated by extension. In tuberculous disease, abscesses and granulation, tissue may form around the cord, constituting a pachymeningitis. The exudate may compress the cord and make it anæmic. Interference with the lymph and blood streams also occurs and may cause œdema. Circulatory disturbances can exist for a long time without causing an irreparable paralysis. When, as is rarely the case, the disease affects the arches instead of the bodies of the vertebræ, operation is indicated and will probably be followed by good results. The improvement which sometimes occurs in these cases without operation has been, in his experience, only temporary. This has made him more willing to resort to operative procedures. The first case operated on had disease of the arches. The results were brilliant. Sensation began to return the same day and in two days was normal. On the fourth day motion began returning, and in four weeks the patient began to walk. Two months later the paralysis returned, and the patient died of tuberculosis of the lungs seven months after. In a second case an exudate into the canal was found, but no good results came from the operation and the patient died eight weeks later. In two other cases granulation masses were found overlying the dura; in one of these recovery was almost complete in two months; he then relapsed and is now dying of tuberculosis of the lungs. The results in the other case were not so rapid, but were marked for a while and then remained stationary. Operation may be advised also in those cases of kyphosis in which treatment has proved useless, and in which the onset of the paralysis was rapid, and involved the bladder and rectum. These cases lead to a rapid death anyway, and if allowed to remain long, the paralysis is irreparable.—*Univ. Med. Mag.*

A NEW OPERATION FOR SPASMODIC WRYNECK, NAMELY, DIVISION OR EXSECTION OF THE NERVES SUPPLYING THE POSTERIOR ROTATOR MUSCLES OF THE HEAD.

W. W. Keen, M. D., has devised and performed the following operation in view of the implication of the posterior muscles of the neck (*Annals of Surgery*, January, 1891) which rotate the head in cases of spasmodic torticollis. The operation consists of the following steps:

First Step.—The field of operation having been shaved and disinfected, make a transverse incision about half an inch below the level of the lobule of the ear, from the middle line of the neck posteriorly, or even slightly overlapping the middle. This incision should be two and a half to three inches long.

Second Step.—Divide the trapezius transversely.

Third Step.—Dissect up to the trapezius and find the occipitalis major nerve as it emerges from the complexus and enters the trapezius. In the complexus is an intra-muscular aponeurosis. The nerve emerges from the complexus at a point between this aponeurosis and the middle line, usually about a half inch below the incision, but sometimes higher up, and then enters the trapezius. It is always a large nerve of the size of a stout piece of catgut, and it is easily found if sought for at the right place.

Fourth Step.—Divide the complexus transversely at the level of the nerve.

This division should be made by repeated small cuts, so as not to cut the nerve which is our guide, after which dissect the nerve still further down from the anterior surface of the complexus, where it arises from the posterior division of the second cervical. Cut, or better, exsect a portion of the posterior division before the occipitalis major arises from it, so as to catch the filament to the inferior oblique muscle. This divides the *second cervical.*

Fifth Step.—Recognize the inferior oblique muscle by following the sub-occipital nerve towards the spine. The nerve passes immediately below the border of the muscle.

Sixth Step.—Recognize the sub-occipital triangle formed by the two oblique muscles and the rectus capitis posticus major. In this triangle lies the sub-occipital close to the occiput. It should be traced down to the spine itself, and be divided, or better, exsected. This divides the *first cervical.*

Seventh Step.—An inch lower down than the occipitalis major, and under the complexus, is the external branch of the posterior division of the third cervical to the splenius. When found it is to be divided or exsected close to the bifurcation of the main trunk. This divides the *third cervical.*

A drainage-tube and horse hairs are to be inserted, and as the patient lies on the back, although the wound is very deep, the condition is most favorable for good drainage. If desired, the posterior muscles can be united by buried sutures, independently of those in the skin. The after-treatment is the same as for ordinary operations.

OBSTETRICS.

CÆSAREAN SECTION FOR A GIANT INFANT.

Rachel and Neumer (*Répertoire d' Obstét. et de Gynéc.*, May 25, 1891) report the case of a woman, forty years old, the abdomen of whom, in the twelfth pregnancy, was enormously distended. The labor not progressing, version was attempted, but the fœtus would not pass the superior strait. Disarticulation of the leg, preparatory to evisceration, was attempted, but was unsuccessful. Finally, Cæsarean section was decided upon. The mother died soon after the extraction of the fœtus. The latter, almost exsanguinated as a result of the amputation, weighed twenty-two and a half pounds. The parents were not unusually large. The only explanation of the great size of the fœtus lay in the age of the mother and the number of pregnancies and in the fact that the fatal pregnancy had passed one month beyond term.—*Lyon Medical*, July 12, 1891.

PERFORATION OF UTERUS BY SOUND, AND FATAL SUBLIMATE POISONING.

Dr. Gebhard (*Nouvelles Arch. d' Obstét. et de Gynéc.*, August, 1891), recently observed a patient who had been under treatment from November 5th, 1890, for gonorrhœa. A 1 in 5000 sublimate solution was thrown up by means of a Bozeman's sound, at intervals of a day or two, in the out-patient room. On the third occasion, November 11th, immediately after the introduction of the sound, the patient complained of pain. After nearly a pint of the solution had been thrown up, the pain increasing, the injection was suspended. Vomiting and faintness came on rapidly. Perforation of the uterus and entrance of the solution into the peritoneal cavity was diagnosed. An opium suppository was administered. Dysenteric diarrhœa followed in a few hours. On the next day complete anuria set in. Mucus was continuously discharged from the rectum, which protruded and was ulcerated. Stomatitis with a trifling amount of salivation began on the third day. The patient died on the eighth day. Acetate of potash was given to promote diuresis, but completely failed in its object; pilocarpin caused profuse concentrated perspiration, which exhausted the patient and irritated her skin. Opium had been suspended early in the course of the case, Dr. Gebhard believing that it was contra-indicated in dysentery. At the necropsy two complete perforations of the fundus uteri were found, lying close together near the right tube. The peritoneum was inflamed; the entire large intestine and four inches of the ileum were ulcerated and in parts sloughy. One ulcer had perforated the sigmoid flexure. In the tubuli uriniferi were found cretaceous deposits of the kind described as occurring in the kidneys of patients dead from mercurial poisoning. Dr. Gebhard dwells at length on the pathology of this condition. It appears certain that stoma-

titis and salivation, which follow so sharply on an overdose of mercury by inunction or friction, are not the first symptoms in poisoning by mercurial injections used after child-birth. In that case diarrhœa is the earliest sign, and it rapidly becomes mucous, sanious, and ultimately fœtid. It represents gangrenous dysentery. The next symptom is a marked diminution in the excretion of urine, often ending in suppression. Stomatitis follows third, and may be severe, but salivation is not constant even in fatal cases. The temperature is subnormal. In the case above related, where there was acute traumatic peritonitis at the beginning, the temperature was high for a few days, but fell below normal when the symptoms of poisoning began to predominate. Erythema is rare.—*Brit. Med. Jour.*

URETHRAL CARUNCLE.

Christopher Martin (*Birmingham Medical Review*, September, 1891) thinks this neoplasm has hardly received the attention it deserves. He classifies it amongst the vascular tumors. It is exceedingly doubtful whether the connection between the majority of causes usually assigned to it and the disease is more than accidental. On the other hand, he thinks it likely that in many cases the exciting cause is a highly acid or irritating condition of the urine. Uric acid is peculiarly responsible for many cases. At the end of each act of micturition a drop of highly concentrated urine loaded with sharp crystals is left at the meatus. The crystals settle on the mucous membrane, and possible lodge in the glandular crypts which are so abundant there, and the repeated irritation of their presence determines the new growth. This irritation is partly mechanical, partly chemical. Whether or not it actually causes it, certain it is that, after the growth has developed, a highly acid urine frightfully aggravates the patient's sufferings. The great symptom is pain. The suffering is out of all proportion to the size of the growth. The distress is present on walking, passing urine, during coition, or at any time the parts may be impinged upon. The diagnosis is made complete on inspecting the external genitals. On drawing apart the labia, there is seen at the meatus urinarius, or just within it, a small bright crimson growth. It varies in size from a pin's head to a cherry, but is generally about the size of a pea. It is usually situated on the posterior lip of the meatus. It is very soft and friable, and bleeds readily on manipulation. If carefully prepared sections of a caruncle are examined with a moderate power, the growth is seen to consist of very numerous and widely dilated capillary loops embedded in a delicate connective-tissue stroma. The treatment consists in the *complete* removal of the growth. The patient is anæsthetized and placed in the lithotomy position. An elliptical incision is made in the mucous membrane of the vestibule around the meatus, and about one-sixth of an inch distant from it. By means of fine scissors this incision is deepened, and the entire lower end of the urethra, for about one-third of an inch of its extent, is separated from the surrounding tissues. The piece of the urethral canal thus isolated is gently drawn down and removed by a snip of the scissors. The edge of the divided urethral mucous membrane may then be united to the edge of the divided vestibular mucous membrane by a few sutures, or the raw surface may be allowed to granulate. Cicatricial stricture may be prevented by the regular passage of a soft bougie. If a stricture should form, it may be easily remedied by slitting the urethra up for about a third of an inch. The prognosis as to the likelihood of recurrence after removal should be guarded.—*Univ. Med. Mag.*

TETANY IN MENSTRUATION, PREGNANCY AND LACTATION.

Dr. von Jaksch (*Wien. med. Presse*, 1891, No. 23) noticed the characteristic spasms of tetany in a woman, aged thirty-five, during the fifth month of pregnancy. She first noticed tetany, before a menstrual period, when nineteen years old. The symptom subsided and did not reappear till eighteen months later, during her first pregnancy. The second and third pregnancies were free from tetany, which reappeared during the fourth, and also the fifth, when she was under observation. This case was essentially chronic and seemed to arise from some disturbance associated with extirpation of strumous glands, dyspepsia, pregnancy and lactation. According to Professor Schauta, only a few cases of tetany in direct association with pregnancy have been recorded. Meinert, of Dresden, collected nine such cases in 1885. In one of these tetany

appeared in the third and sixth pregnancies, at an interval of eight years. The symptom increased towards the end of pregnancy, and ceased after delivery. Müller, of Berne, records a very instructive case. A patient, aged forty-five, suffered from tetany from the age of ten upwards, the attacks increasing greatly during her only pregnancy. Trousseau has seen forty cases of tetany during lactation, and about as many instances of this curious affection have been observed during menstruation.—*Brit. Med. Jour.*

PROPHYLAXIS OF PUERPERAL FEVER

J. Veit (*Berlin. Klin. Wochensch.*, 11th May, 1891) contributes an important paper on this subject, advocating almost complete abstinence from internal examination in attendance on labor. The external examination yields the position of the fundus, of the child and of the head, the condition of the child, of the mother, and of the membranes; and if these are all normal, no internal examination is necessary. The indications for internal examination in the first period of labor are—(1) General disturbances—*e. g.*, eclampsia, nephritis, fever, etc.; (2) Local disturbances—*e. g.*, discharge of blood, abnormal painfulness of labor or long duration; (3) Departure from the normal in external examination—*e. g.*, position of head above pelvis in primiparæ or after escape of waters in multiparæ, abnormal distension of lower uterine segment, slowing of fœtal heart sounds, etc. In the second stage of labor internal examination is only rarely indicated, and really only when the question of operative aid arises. In the third stage internal examination should only be made when there is excessive hæmorrhage, and in the puerperium only in fever or hæmorrhage.

AN EARLY SYMPTOM OF WHOOPING-COUGH.

Dr. Huguin, of Tourteron, affirms (*Union Méd. du Nord-Est*, May, 1891) that photophobia with dilatation of the pupil is a useful diagnostic symptom of whooping-cough in the early stage, before the cough has become characteristic. He cites three cases in support of this opinion; two of the patients were children and one an adult, and in all of them the symptoms referred to preceded any other manifestation of the disease.—*Brit. Med. Jour.*

PÆDIATRICS.

BACTERIOLOGICAL RESEARCHES UPON THE SALIVA OF CHILDREN SUFFERING FROM MEASLES.

The investigation of Mery and Pierre Boulloche lead them to conclude that the pneumococcus and the streptococcus are to be found in the saliva of children suffering with measles, with greater frequency than in healthy children. Broncho-pulmonary accidents rarely appear in connection with measles except in those cases in which the streptococcus or pneumococcus is to be found in the saliva. After death one may trace the pathogenic microbe which has been found in the saliva in the upper air passages as far as the smaller bronchi. The very frequent presence of the pathogenic agents of broncho-pneumonia in the saliva of children suffering with measles appears to explain the great number of broncho-pulmonary complications with that disease. Hence the necessity of the most vigorous antisepsis of the buccal cavity during the progress of the disease.

INTUBATION IN 1890-91.

A year ago Professor Von Ranke published statistics of 413 cases of intubation, collected from German, Austrian, and Swiss (German) sources, and compared them with 866 tracheotomies collected from the same sources, and performed within recent years. He now reports (*Münchener medicinische Wochenschrift*, October 6, 1891) 365 cases of intubation performed for diphtheritic croup in Germany, Austria, and Switzerland during the past year. Of these cases 94 were his own and the remainder were performed by the six following operators, namely, Ganghofner, Jakubowski, Von Muralt, Unterholzner, Schwalbe, Baginsky, and Escherich. He has also presented for comparison 237 cases of tracheotomy performed during the same period by Jakubowski, Steffen, and Unterholzner. Of the 365 cases of intubation 348 were performed for primary diphtheria, and 17 for diphtheria secondary to measles. Of the former 143 recovered, or 41 per cent., and of the latter 5 recovered, or 29.4 per cent. Among the whole 365 cases, therefore, there was 148 recoveries, or 40.5 per cent. It must be stated, however, that tracheotomy was performed

in 83 cases, or in nearly a fourth of the whole number, after intubation had been tried. Of these 6 eventually recovered, and it is not quite accurate to include these among the recoveries obtained by intubation, as Von Ranke appears to have done. Of the 237 cases of tracheotomy which he collected, 78 recovered, or 32.8 per cent. The results of intubation are, therefore, superior to tracheotomy, so far as these statistics are concerned, and there is a decided improvement in the results of intubation over those shown in Von Ranke's former report. On that occasion the recoveries from intubation were 34 per cent., and from tracheotomy 38.1 per cent., so that the relative position of the two operations is now reversed. The author attributes the better results to the greater experience which operators now possess, and to the improved tubes which are now employed. He attributes his own improved results in no small degree to the fact that he now leaves the thread in place, and has recourse to the extractor for removal of the tube only in exceptional cases. He thinks it a great advantage that, with the thread in place, the nurse is able to remove the tube when there are signs of its being blocked, and he has noticed that after its removal in such cases more or less membrane is often expelled, and the breathing is easier for a time. He lays stress on the fact that ulceration from pressure of the tube is now very rarely found, and this he believes to be due to the employment of properly constructed tubes.—*Brit. Med. Jour.*

HYGIENE.

THE DIETETIC VALUE OF PEPTONES.

In the current number of the *Journal de Pharmacie* of Antwerp, M. Denaeyer describes a very simple method for the determination of the dietetic value of peptones. The complete analysis is tedious and difficult, and it is even now by no means perfect. M. Denaeyer himself has done much towards its improvement, and we are not the less grateful to him for giving us a method by which the comparative merits of different commercial samples can be obtained with simplicity and some approximation to accuracy. The method depends on the fact that the more valuable constituents of a peptonic fluid are precipitated by strong alcohol, To this class belong albumen, albumose, peptone, and one variety of gelatine. The alcoholic extract retains in solution definite compounds such as creatine, tyrosine, and urea. The mode of working is as follows: 10 cc. of a 20 per cent. solution of peptone are treated with 100 cc. of strong alcohol; after standing for twenty-four hours the extract is removed by decantation, and the precipitate and extract are separately evaporated to dryness, the latter at 105°C., and each is carried to constant weight. The dietetic value of the peptone depends on the percentage of the precipitate, which contains all the true food constituents. M. Denaeyer states that the extract should not amount to more than 30 per cent. of the whole dry matter, any larger proportion being due to products of metamorphosis—such as leucine, tyrosine, aspartic acid, glycocol, amido-butyric acid, and the like. Such an assay, although of practical utility, cannot supersede complete analysis. It is evident, for example, that gelatin would be reckoned by the above process along with the valuable peptone constituents, since strong alcohol precipitates this body.—*Lancet.*

TO DISTINGUISH MARGARIN FROM BUTTER WHEN THE TWO ARE MINGLED.

"Alimentary fats," says M. Lezé, in the *Répertoire de Pharmacie*, "usually contain from 10 to 12 per cent. of water, and, therefore, in searching for a substance to free from this element, it is necessary to utilize something that has a great avidity for the same, without any affinity for the fat."

Syrup of sugar is his choice as an agent in this respect. A solution of sufficient density renders easy the separation of the two substances. He pours into a test tube of 10 ccm. capacity 1 or 2 ccm. of simple syrup, places the tube in a water bath, and adds, little by little, the butter to be assayed, until the 10 ccm. mark is reached. The tube is then corked and shaken, and then a strong thread is passed around the mouth and the tube is rapidly whirled around the head for several seconds. When the whirling stops, if the butter is pure, the fatty matter is clear and limpid, and the whitish emulsion of residual milk, water, and syrup is voluminous and well marked. If margarin be present, the fatty matter remains turbid and milky.

This process permits of the detection of 20, or even 15, per cent. of adulteration.

The aspect of the melted fats is characteristic, and, more than this, margarin exhibits normally the phenomenon known as super-fusion, and communicates this property to fats with which it is mingled. Thus we see a pure butter in cooling becomes first turbid, and finally becoming pasty, while butter, even with only a small amount of margarin, always preserves a semi-transparent condition.

MEDICAL CHEMISTRY.

TO OBTAIN PURE OXYGEN RAPIDLY.

Zinno's method consists in mixing intimately 200 gm. of powdered potassium permanganate with an equal weight of barium binoxide. On the addition of water, oxygen is disengaged. With the amount stated, at ordinary temperature, 13,620 ccm. of pure oxygen are generated. The oxygen is rapidly produced, and is not contaminated by chlorine or chlorine products.

BROMOL.

Bromol, which was introduced into therapeutics by Dr. Rademaker, is a chemical compound, tribromophenol, and is obtained as a white flocculent and gradually crystalline sediment when bromine water is added to an aqueous solution of carbolic acid. Pure tribromophenol occurs as a white crystalline substance which melts at a temperature of 203° F., and is nearly insoluble in water, but readily so in alcohol, ether, chloroform, glycerine, and in fatty and ethereal oils; the odor is disagreeable, like that of bromine; the taste is sweet and astringent. According to some experiments previously published by Grimm, the antiseptic virtues of bromol would seem to rival those of carbolic acid. When it is applied to recent wounds it causes a sensation of burning and has a caustic action; it stimulates atonic granulations, and produces a favorable effect on tuberculous processes. In gangrene it acts as a powerful disinfectant, and accelerates the separation of dead matter. Dr. Grimm applied it to wounds either in a pure state or mixed with some indifferent powder, and as an ointment. He also employed it to impregnate bandages. He considered it inapplicable to the mucous membrane of the mouth, nose, and pharynx, on account of its caustic properties. Dr. Rademaker uses bromol either in substance or in solution of olive oil of the strength of 1 in 30, or as an ointment of the strength of 1 in 10. In diphtheria he brushes the membrane with a glycerine solution of the strength of 1 in 25. As tribromophenol remains undissolved by the gastric juice and is only slowly acted upon during its passage through the intestinal canal, Dr. Grimm made use of it as a disinfectant of the bowel, giving it in doses of from three to seven and a half grains per diem. Dr. Rademaker also has adminstered it in cholera infantum in doses of from five to fifteen milligrammes, and has prescribed it in typhoid fever. It is secreted by the kidneys in the form of tribromophenol-sulphonic acid.—*Lancet.*

ALKALOIDAL ASSAY OF NARCOTIC PLANTS.

Dr. O. Schweissinger has has occasion to investigate the alkaloidal yield of narcotic plants cultivated near Berlin. He reports on his results in *Pharm. Centralhalle* (No. 41). The method of assay which he used was the following:

Ten grammes of finely cut dry herb (aconite, belladonna, etc.) are put into a flask, digested (warm) over night with 209 c.c. of water containing 1 c.c. of diluted sulphuric acid, the mixture being occasionally agitated. Flask and contents having been weighed as soon as the latter had been introduced, any loss of weight which the apparatus has suffered during standing is made good by adding enough water to restore the original weight. The mixture is then allowed to cool, strained, the residue pressed, and the strained liquid measured. It will measure, say, 180 c.c. (which would correspond to 9 gm. of herb). This amount is now evaporated on the water bath under constant stirring, during which time the temperature is conveniently kept at 65° C. (149° F.). When the residue weighs about 20 gm. the thin fluid extract is poured into a measuring cylinder or flask of the capacity of 100 c.c., and alcohol then added up to the mark (100), which causes precipitation. The whole is then thoroughly shaken. (Without this precipitation by alcohol the subsequent treatment with chloroform or ether-chloroform, by

shaking with these menstrua, becomes impossible, owing to the formation of emulsions.)

The evaporation may also be continued down to about 10 c.c., and alcohol then added to 50 c.c. In this case, however, the sediment settles much slower and filtration is more difficult.

After the sediment has been deposited the liquid is filtered. A measured portion of the filtrate is evaporated to 10 c.c., transferred to a separatory funnel, 1 c.c. of ammonia water added, and shaken with 40 c.c. of ether-chloroform (15 c.c. of chloroform+25 c.c. of ether). Twenty cubic centimeters of the ether-chloroform solution are then removed, evaporated in a capsule, and triturated with one-hundredth normal acid.

This method had been published by the author before, but since it has given him so uniform and accurate results, he has now republished it.

The results obtained by the author are interesting also to us, since they show the average yield of alkaloid under several conditions.

	Amount of alkaloid in the		Amt. of water in the herb.
	air dry herb.	anhyd's herb.	
Aconite herb 1 year old, cultiv.....	0.380	0.417	13.55
" " wild (1890).....	0.496	0.595	16.2
" " cultiv. (1890).....	0.496	0.602	17.74
Belladonna leaves, 1 year old, cultiv...	0.189	0.200	12.5
" " wild (1890).....	0.300	0.402	23.25
" " cultiv. (1890).....	0.132	0.172	23.5
Hyos yamus " wild (1890).....	0.072	0.085	15.4
" " cultiv. (1890).....	0.063	0.070	9.85
Stramonium " wild (1890).....	0.289	0.319	9.6
" " cultiv. (1890).....	0.231	0.255	9.5

PREVENTABLE BLINDNESS.

Dr. C. D. Conkey, in an article in the *Northwestern Lancet*, on "Preventable Blindness," April 15, 1891, ably condenses much information in this compend, viz.:

1. The largest proportion of blindness in the young can be prevented.

2. The majority of cases of blindness develop in the practice of the general practitioner, in the course of the invasion of the grave diseases of childhood, or as a consequence to these, or as a result of a contagious leucorrhœa in the mother.

3. To successfully prevent them, prophylactic measures should be adopted in all cases where danger is suspected, or where the eye shows a tendency toward inflammatory action.

4. The physician should be sufficiently acquainted with eye diseases to treat them skilfully when the eye becomes invaded.

5. After all severe attacks of the diseases of childhood the patient's sight should be carefully tested before he is dismissed as convalescent.

NEWS AND MISCELLANY.

ANOTHER BOGUS AMERICAN DIPLOMA.

Recent numbers of American contemporaries announce the arrest of a Dr. (?) Van Vleck on a charge of issuing bogus medical diplomas, his institution going under the name of "The Medical University of Ohio," a title which is dangerously like that of The Medical College of Ohio, which, we are assured, is a comparatively reputable institution. Unfortunately the state of public opinion in far-away Ohio is not favorable to the repression of adventurers of this sort, and the lay press is strongly in their favor, on account of the advertisements which the quacks are shrewd enough to deal round with a liberality bordering on profusion.—*Med. Press.*

WORSHIPPING MEDICINE BOTTLES IN BURMAH.

A good story is told by the *Modern Church*. An eminent lady missionary in Burmah recently gave Dr. A. J. Gordon an instructive but somewhat startling chapter from her experience. In one of her tours, she said, she came upon a village where cholera was raging. Having with her a quantity of a famous pain-killer, she went from house to house administering the remedy to the invalids, and left a number of bottles to be used after she had gone. Returning to the village some months after, the missionary was met by the head man of the community, who cheered and delighted her by this intelligence: "Teacher, we have come over to your side; the medicine did us so much good that we have accepted your God." Overjoyed at this news, she was conducted to the house of her informant, who, opening a room, showed her the pain-killer bottles solemnly arranged in a row upon the shelf, and before them the whole company immediately prostrated themselves in worship.—*Rural and Colonial Druggist.*

INFLUENZA ABROAD.

A noteworthy difference between the present outbreak of influenza and those experienced last spring and the original epidemic of the winter of 1889–90 is the comparative slowness of its diffusion over the country. It is mainly confined to two widely separated parts of the kingdom—viz., Cornwall and the eastern counties of Scotland. The reports from the latter show that some towns and villages in Forfarshire, Perthshire, Fifeshire and Kincardineshire have suffered severely. In Dundee, the epidemic is on the decline, as also at Arbroath, where it has been particularly severe. At Lochee it is reckoned that more than 1600 cases have occurred during the past month, and twelve deaths are attributed to it. It has been very prevalent at Edinburgh, but it seems only to have appeared at Aberdeen quite recently. It is remarkable that children are being attacked almost as much as adults. Abroad, it is reported to be very prevalent in St. Petersburg and Berlin, whilst at Hamburg last week it had reached "alarming proportions," and the weekly mortality of the city and its suburbs exceeded the average by 280. In France it is especially prevalent at Bordeaux, where many deaths among the aged have occurred. It has also, as will be seen from our correspondent's letter, appeared in Paris.—*Lancet.*

COMPRESSED MEDICINE TO BE USED HEREAFTER IN THE ARMY AND NAVY.

The army medical service is interested in a contract which was awarded at the War Department for a new system of carrying medical and surgical supplies for an army. Ever since the last Sioux campaign there has been a growing demand for a plan by which supplies needed by the surgeons could be placed in a more compact form than liquid, and carried with greater safety and economy. The result of the award is believed to be as near perfection as possible. In a small, light wooden chest, 23 inches long, 14½ inches wide, and 17¾ inches high, are sixty square bottles, containing as many different kinds of medicine, but in compressed tablet form, none of them being larger than an ordinary peppermint lozenge. One of these lozenges or tablets contains all the necessary ingredients of a liniment, and when dissolved in an ounce of distilled water its healing properties are the same as if it was in liquid shape and in a big glass jar. Some idea may be formed of the perfection to which the art of compression has been brought by the fact that, if the contents of this small brass-bound chest were liquefied and in their customary jars and bottles, they would occupy nearly one-half of the space of a regular freight-car. After all, however, fluid extracts and powders take up less space than compressed tablets.—*Med. Rec.*

DIPHTHERIA IN MILAN.

The Nemesis of bad water supply has of late been conspicuous in the Lombard capital. We have drawn attention to the severity of the typhoid fever visitation due to that cause. Now we have to refer to another hardly less severe—that of diphtheria. It is in the schools that this latter scourge has been most prevalent, and, as usual, we hear of its ravages long after its first appearance. It must have been in the spring that it began to assume an epidemic form, and it was at midsummer that it numbered most victims. In April the cases were 67; in May, 65; in June, 76. July witnessed a decline in the frequency of its attacks. There were 51 in that month, 52 in August, and 33 in September, when the schools were closed for the holidays; but in October the cases rose again to 45. During the present month the diminution in number has been maintained, and also, it is said, the gravity of the symptoms has perceptibly declined; but there is still diphtheria enough in the city to justify the most active vigilance on the part of the Ufficio Sanitario, and the utmost anxiety in all interested in school management—parents and masters alike. A correspondent tells us of an outbreak of the disease in the Via Palermo, where a much-frequented *scuola communale* is situated. Six cases are already reported in that quarter. Milan has spent much on public buildings, some of which are among the finest in Europe. We have lately seen proposals to replace the façade of her world-famous cathedral by a new one. But as long as her drinking water continues the prolific source of disease, we should think that improved sanitary works, including an aqueduct to put a sufficient supply of *acqua potabile* within the reach of all her citizens, ought to take precedence of all others.—*Lancet.*